SASKATCHEWAN RESEARCH COUNCIL

# ACQUISITION AND TRANSFORMATION OF SASKATCHEWAN RESEARCH COUNCIL PROPRIETARY DATA BY USE OF A PROTOTYPE MICROCOMPUTER SYSTEM FOR THE CANADIAN URANIUM TAILINGS DATABASE (CANUT)

by

J.H. Dyck, C.T. McKenzie and P.I. Tones

DECLASSIFIED
DATE 20 September 1984
AUTHORIZED BY

CONFIDENTIAL

Publication R-852-2-C-84 July, 1984

To: Mr. R. John
Dept. of Energy, Mines and Resources
CANMET
National Uranium Tailings Program
555 Booth Street
Ottawa, Ontario K1A 0G1

Re: FINAL ASSESSMENT REPORT
NUTP/CANMET Contract No. 23241-3-1651
Serial No. OSQ83-00158

# ACQUISITION AND TRANSFORMATION OF SASKATCHEWAN RESEARCH COUNCIL PROPRIETARY DATA BY USE OF A PROTOTYPE MICROCOMPUTER SYSTEM FOR THE CANADIAN URANIUM TAILINGS DATABASE (CANUT)

by

J.H. Dyck[1], C.T. McKenzie[1], and P.I. Tones[2]

1 = Resources Sector
2 = Environment Sector

SEP 24 1984
MICROMEDIA

Saskatchewan Research Council
30 Campus Drive
Saskatoon, Saskatchewan S7N 0X1

242 pp
SRC Publication No.
R-852-2-C-84

11 July, 1984

TABLE OF CONTENTS


| | | |
|---|---|---|
| LIST OF TABLES | | i-3 |
| LIST OF FIGURES | | i-3 |
| LIST OF APPENDICES | | i-3 |
| 1. INTRODUCTION | | 1-1 |
| | 1.1 References To Contract | 1-1 |
| | 1.2 CANUT Standards | 1-1 |
| | 1.3 Hierarchical Versus Relational Data Structure Models | 1-2 |
| | 1.4 The Goal and Objectives | 1-3 |
| | 1.5 Completion of Work | 1-4 |
| 2. COMPILING AND CODING PROPRIETARY DATA | | 2-1 |
| | 2.1 Introduction | 2-1 |
| | 2.2 The General Study Area | 2-1 |
| | 2.3 Using Data Entry Forms | 2-1 |
| | 2.4 CANUT Data Elements For Each Data Entry Form | 2-4 |
| | 2.5 Examples of Problems Encountered | 2-5 |
| | 2.6 Entering Data Into The Computer | 2-9 |
| 3. THE MICROCOMPUTER SYSTEM | | 3-1 |
| | 3.1 Introduction | 3-1 |
| | 3.2 Rationale for Hardware and Software Selection | 3-1 |
| | 3.2.1 Hardware | 3-2 |
| | 3.2.2 Software | 3-2 |
| 4. FILES OF PROPRIETARY DATA | | 4-1 |
| | 4.1 Introduction | 4-1 |
| | 4.2 Index To Data Listings | 4-1 |
| | 4.3 File Structure Listing | 4-1 |
| | 4.4 Report Form Files | 4-3 |
| | 4.5 Data Listings | 4-3 |
| | 4.6 Proofreading the Data | 4-4 |
| | 4.7 Editing the Computer Files | 4-4 |
| | 4.8 Computer Communications | 4-5 |
| | 4.9 Joining Files | 4-5 |
| 5. SUMMARY AND CONCLUSIONS | | 5-1 |
| 6. SELECTED REFERENCES | | 6-1 |

## LIST OF TABLES


| | | |
|---|---|---|
| 1. | Complications encountered during data entry work. | 2-6 |
| 2. | Size of computer files containing proprietary information. | 2-10 |
| 3. | Index to data listings and Appendices. | 4-2 |


## LIST OF FIGURES


| | | |
|---|---|---|
| 1. | Grouping of data elements (in CANUT) for specific data entry forms. | 2-3 |
| 2. | Schematic diagram of major hardware components in the microcomputer system. | 3-3 |
| 3. | Relationship of six files used in the example showing the join command. | 4-7 |


## LIST OF APPENDICES


| | | |
|---|---|---|
| A. | Statement of Work From the Contract. | 1 |
| B. | Copies of progress reports for the period November 1983 to February 1984 by Dr. P.I. Tones. | 4 |
| C. | Final progress report, Biological Component by Dr. P.I. Tones. | 31 |
| D. | Data entry forms for TABLE01 to TABLE04 inclusive | 74 |
| E. | Index of CANUT's data elements for each data entry form. | 79 |
| F. | File structure and data listing for TABLE01. | 84 |
| G. | File structure and data listing for TABLE02. | 88 |
| H. | File structure and data listing for TABLE03. | 93 |
| I. | File structure and data listing for TABLE04. | 96 |
| J. | File structure and data listing for TABLE05. | 100 |
| K. | File structure and data listing for TABLE06. | 104 |
| L. | File structure and data listing for TABLE07. | 110 |
| M. | File structure and data listing for TABLE08. | 133 |
| N. | File structure and data listing for TABLE09. | 184 |
| O. | File structure and data listing for TABLE10. | 198 |
| P. | File structure and data listing for TABLE11. | 202 |
| Q. | TABLE13, TABLE14, TABLE15 used in a join-command sequence (See Chapter 4) | 206 |

# 1. INTRODUCTION

## 1.1 References To Contract

This report concludes the work undertaken by the Saskatchewan Research Council (Saskatoon, Saskatchewan) as part of a contract which was dated November 7, 1983 and which is identified by the following Supply and Services Canada references, namely:

NUTP/CANMET Contract No. 23241-3-1651 and
Serial No. OSQ83-00158.

The title of this contract was given as:

"Acquisition and transformation of Saskatchewan Research Council proprietary data by use of a prototype microcomputer system for the Canadian Uranium Tailings database (CANUT)."

The scientific authority named for this project was Mr. Roy John, CANMET, National Uranium Tailings Program (NUTP), Department of Energy, Mines and Resiurces, Ottawa, Ontario. Considerable liasion work was effected by Ms. Mina Pun and Mr. G. Tremblay, also of the NUTP.

The required work was undertaken at the Saskatchewan Research Council primarily by J.H. Dyck, P.I. Tones and C.T. McKenzie as required under the terms of this contract.

## 1.2 CANUT Standards

For purposes of this study several important reference and standard publications were available (See selected references: 7, 9, 10). These dealt with data standards and user's instructions for the CANUT database as part of the NUTP. As well, important coded values used during the course of data coding work were referenced and defined in the NAQUADAT data dictionary.

During the course of this study additional coded values and new variables were added and defined.

New coded values for "Measurement Type" (i.e. Data Element No. 1001, CANUT) were defined and added, for example, to the NAQUADAT data dictionary (See selected reference 26, p. 13ff). The new code assignments were made via communications with and the assistance of the Head, Data Systems Section, Water Quality Branch, Inland Waters Directorate, Ottawa.

Many data elements were specified for use with CANUT (See selected Reference 9). Additional data elements were defined by the Saskatchewan Research Council to augment the CANUT specifications. These are explained fully in the Final Progress report by Dr. T.I. Tones and which is enclosed in an Appendix in this report (See "Saskatchewan Research Council, Data Dictionary").

## 1.3 Hierarchical Versus Relational Data Structure Models

The CANUT database was implemented by CANMET/EMR using the System 2000 Data Base Management System (See selected references 2, 4).

For purposes of discussion a database is an organized collection of interrelated data that serves one or more applications. A database management system is, for example, a computerized integrated system of data and programs for storing, manipulating, and retrieving data.

What is a hierarchical database management system?

The user specifies the types of data and the record relationships for the database by using the appropriate commands, depending on the software being used. These specifications become the "database definition." The definition is then used by both the user and System 2000 for storing, modifying, and retrieving information. At this time only the Data Administrator of the CANUT database is permitted to update information in the system (See Selected Reference #10, p. 28).

A System 2000 database consists of groups of data values called "data records" organized in a hierarchical structure so that some records are subordinate to others. Each record can contain one or more items that are used to store the actual data values.

A schematic diagram of the hierarchical arrangement of records used in the CANUT database is given in the NUTP data standards manual (See selected reference 9, Figure 1).

What is a relational database management system?

A relational database management system consists of a database, which is a collection of data records, and a query language for manipulating the database. Within the database, data records are organized into structures called relations, identified by unique relation names. Relations can be thought of as tables with fixed number of columns and a variable number of rows. The columns are called attributes and each has a unique attribute name. All data values under a given attribute are of the same type, such as integer or character. Each row in a relation is called a record, with one data value for each attribute.

For purposes of discussing the dBASE II relational database management system (See selected references 17, 18, 19) in this report, relations will be called files. Data are manipulated by dBASE II using specific commands and instructions. Each file consists of a structure record and one to about 1100 data records, depending on the specific file.

In theory dBASE II has been designed to operate on zero to 65,535 records per file, provided that the available mass storage device permits this capacity.

The mass storage devices on the IBM XT microcomputer used for this work have nominally 360K bytes of capacity on the floppy disk and 10M bytes of

capacity on the fixed disk.

The structure record holds information on the data record format. The structure can hold up to 32 different entries. Each entry in the structure refers to a field of data in the data records. For purposes of this report, the attributes or entries mentioned above will be called fields.

File structures for specific files are listed in specified Appendices elsewhere in this report. Major database files for this study are referred to as TABLE01 to TABLE11 inclusive.

## 1.4 The Goal and Objectives

The goal of this project was to provide a means to expedite the entry of data concerning uranium tailings research in Canada into the CANUT database. The workstation aspect of this system was to be developed in a fashion to permit implementation at various locations in Canada.

Important stages of the completed work were to:

1. Select and compile some proprietary data and unpublished material (e.g. aquatic and radionuclide data) at the Saskatchewan Research Council that is relevant to NUTP.

2. Compile data to help qualify and further define the proprietary data.

3. Design and develop a practical data conversion system.

4. Use microcomputer technology that is generally available and meets the requirements of this project.

5. Select and acquire access to to a suitable microcomputer system (e.g. hardware, software, communications interface).

6. Define specifications for the microcomputer system (including file structures) and relate these to CANUT specifications.

7. Transform data found in "manual" files into data that is in a computer format.

8. Create several computer processable files using the microcomputer system.

9. Test various practical database and computer operations.

10. Transmit data from the microcomputer files to EMR's host computer.

11. Assess the results of this work.

## 1.5 Completion of Work

This report concludes the work undertaken through a NUTP/CANMET contract, mentioned earlier.

A statement of work (see Appendix A) in the contract outlined part of the terms of this work.

All the work itemized in this statement of work has been completed.

Details concerning the evaluation of the performance of the prototype microcomputer based system are provided in this report.

## 2. COMPILING AND CODING PROPRIETARY DATA

### 2.1 Introduction

Over the course of this project progress reports have included discussions, by Dr. P.I. Tones, concerning the selection, compilation, and coding of proprietary information. In various reports suggestions were made to aid in further qualifying and defining data requested for the CANUT database. Some of the citations listed in Selected References help to provide details (See: #23, Nov., pp. 11-16; #24, Dec., pp. 3-4; #25, Jan., pp3-4, 13.1-13.13; #26, Feb., pp. 4-5, 12.1-12.2).

Specific suggestions were made throughout the course of this project and were described in various reports to help identify and define specific problems as they were encountered.

Appendix B contains copies of reports as provided in Progress Reports for November 1983, January 1984, and February 1984.

Appendix C contains a copy of the final progress report for this work in this regard.

### 2.2 The General Study Area

For purposes of this study water sample analyses and biological data were selected. The sampled sites were near the Beaverlodge Lake area in northwestern Saskatchewan. The NTS map sheet area covering the sampled sites was ususally indicated to be 74N9W and 74N10E. It was pointed out in the January 1984 Progress Report that Beaverlodge Lake data were entered because the fish samples were collected there. Although it is contaminated by tailings, it is not a containment facility. Most aquatic biological data collected at uranium mine sites are collected in the water receiving the containment facility effluent rather than in the facility itself.

### 2.3 Using Data Entry Forms

Proprietary information was obtained from maps, original field books and laboratory records.

Specially designed data entry forms were designed and used (See Appendix C "Saskatchewan Research Council, Data Entry Forms", TABLE05 to TABLE11 inclusive; Appendix D, TABLE01 to TABLE04 inclusive).

Information was manually transferred from the source documents onto the data entry forms. The use of data entry forms was an interim step prior to entering data into computer files. The forms were standard page sizes (i.e. 8.5 x 11 inches) and were revised several times.

The data entry forms were useful in that they were self-explanatory and yielded considerable experience in compiling, collating, and coding information in a systematic manner for the project.

Basically, two sets of coding forms were designed. The first set was designed for use with water quality information (i.e. TABLE01 to TABLE04 inclusive). This type of data was considered to be easier to deal with and thus served as a starting point. The second set was designed for use with biological data (i.e. TABLE05 to TABLE11 inclusive). To a large extent it was possible to incorporate data elements and the specifications given for the CANUT database into the data entry forms. Additional fields were however defined when dealing with biological information.

Figure 1 illustrates the hierarchy of data elements in the CANUT database. Figure 1 also shows a sub-division of most of the data elements from the CANUT database into several groups. The groups correspond to information recorded on the data entry forms.

The following cross-referenced list shows the data entry forms used with major CANUT data groups.

| CANUT | Water Quality | Biological Information |
|---|---|---|
| 0. Tailings Site | TABLE01 | TABLE05 |
| 20. Study | TABLE02 | TABLE06 |
| 600. Study Authors | ------- | TABLE10 |
| 800. Keywords | ------- | TABLE11 |
| 700. Sample | TABLE03 | TABLE09 |
| 1000. Measurement | TABLE04 | TABLE08 |
| 1100. Results | " | " |
| --- ----- | ------- | TABLE07 |

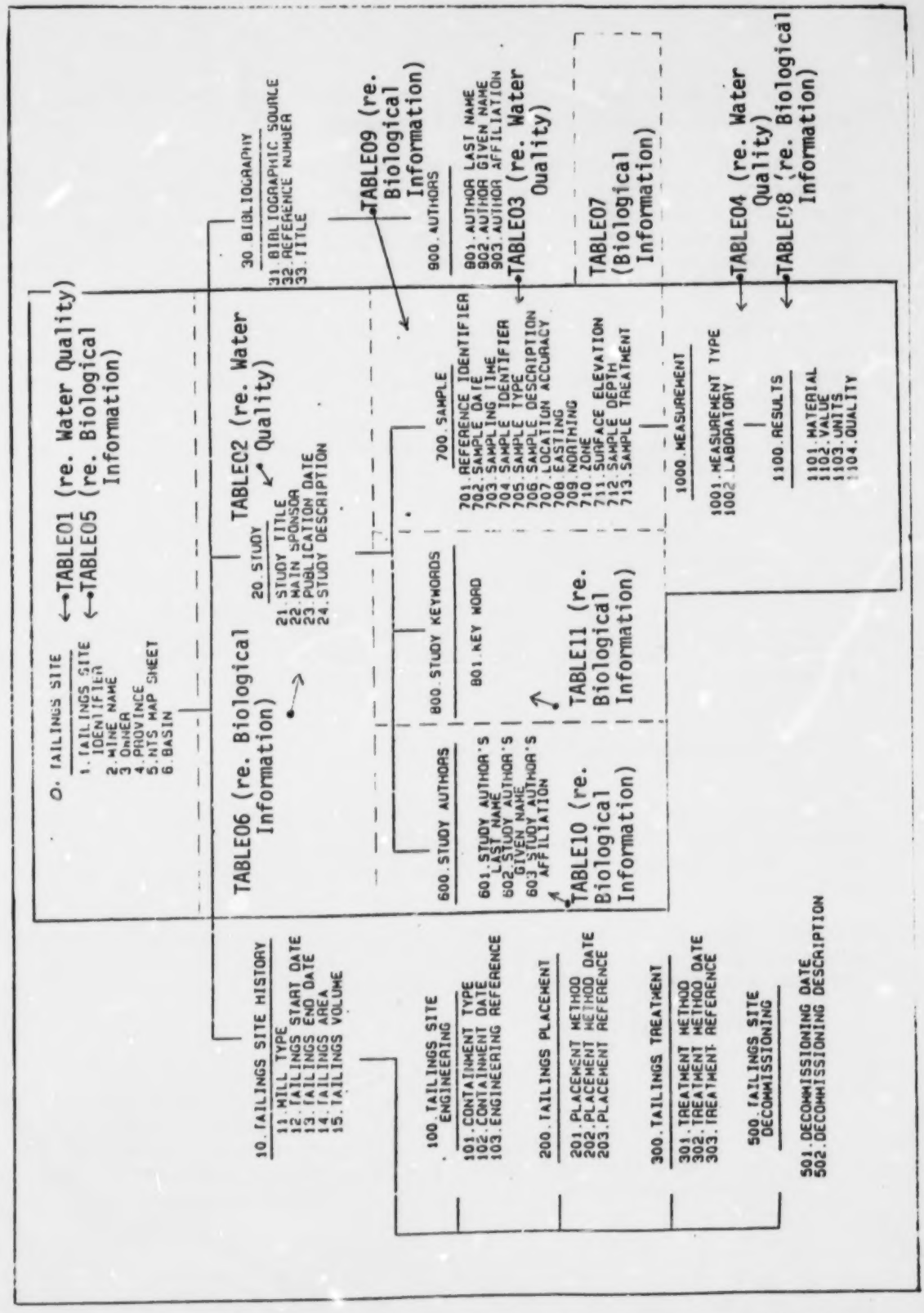



Figure 1. Grouping of data elements (in CANUT) for specific data entry forms.

Figure 1 shows how specific data entry forms correspond with specific groups of data elements in the CANUT database.

Data entry forms which are "lower" in the hierarchy are related to data entry forms which are "higher" in the hierarchy by introducing a field in each record which contains shared data values. The shared field criterion helps to provide a method for relating one data entry form to another. More importantly, these common fields are used later by the relational database management system to join data from one TABLE with data from another TABLE.

This procedure results in some redundancy in coding repetitive information in successive data entry forms. This was not found to be a significant problem either in the manual stages of work or later during data entry work involving the computer.

Some CANUT data elements which were used to provide relational information to permit joining two or more files were:

1. Tailings site identifier,
701. Reference identifier, and
704. Sample identifier.

Certain additional data elements that were defined by the Saskatchewan Research Council were also used to help join data entry forms. These are explained in Appendix C and were very important in dealing with biological information.

## 2.4 CANUT Data Elements For Each Data Entry Form

Appendix E lists the data elements from the CANUT database that appear on each data entry form. Tabulations in Appendix E are sorted on the second column which corresonds to the data entry form (e.g. TABLE01 to TABLE11 inclusive).

Additional cross reference information is also given to help associate CANUT database characteristics with certain file structure information pertaining to the dBASE II database management system.

Appendix E is useful to:

1. List CANUT's data elements for each data entry form.
2. Help find the "common" data fields (which are useful for joining two data entry forms and also the associated computer files).
3. Help identify new data elements which have been defined for use with this work (Note: These are prefixed with an asterisk (*) in column three).

## 2.5 Examples of Problems Encountered

Various problems were encountered during the course of compiling information for this project. Some problems were encountered during the process of entering data onto the data entry forms as they were first designed.

The design of data entry forms closely followed the sequence and hierarchy of data elements according to CANUT specifications. In particular, data entry forms called TABLE01 to TABLE04 were used in the initial stages of work to help compile information for about 72 analyses of water samples. Experience gained initially with this set of data helped to identify problem areas but also led to suggestions for overcoming the problems. This in turn led to modifications which were required to deal with more complex biological information and the interrelationships between data elements.

Table 1, below, briefly explains some of the complications that were encountered during data entry work.

Other problems that were identified included:

1. Assignment of an information source code for the Saskatchewan Research Council (e.g. # 231) as an alternative to using the Laboratory Number (i.e. CANUT # 1002).

2. A variety of problems arose involving the use of the < sign in regard to limits of detectability for certain values, blanks versus zeros in regard to representing missing data in the computer files, the number of significant digits to be recorded in computer files, and the use of a precision field to deal with the matter of significant digits.

3. Assignment of new NAQUADAT codes which were needed. This involved notifying the NUTP administrators and also getting assistance from the Data Systems Section, Water Quality Branch, Inland Waters Directorate.

4. Assignment and definition of new codes and new variables needed for handling biological data. These codes and variables are defined and explained elsewhere in this report.

Table 1
Complications encountered during data entry work.

---

1. Tailings Site Identifier.
   See Progress Report: Jan., pp. 4, 13-2.
   Problem: The tailings site identifier is not necessarily the containment facility.
   Action: Enter the site where data were collected, although this is not a tailings containment facility.

705. Sample Type.
   See Progress Report: Nov., p. 15.
   Problem: This is most serious for coding biological data.

   Although the codes are hierarchical in structure they do not correspond to taxonomic levels which are also hierarchical. For example, code 7500 includes 10 species while the equivalent level, code 7200, lists categories that include millions of species. Category 7240 would group crayfish, zooplankton, and black flies in one group. Such grouping would have little biological meaning.

   The sample type codes are too restrictive. For example, code 7100 allows ten species of fish to be entered. There are 177 species of fish in Canada. Radionuclide data will be available for a limited number of species but even these will exceed ten as soon as the SRC data are entered. Code 7240 is far more restrictive.

   The sample type code should be developed in such a way that the organism is identified at the species level if this has been possible in the study (e.g. lake trout = 'salvelinus namaycush'). This nomenclature is universally accepted and applies in any language. Anything less will create confusion. For example, the white sucker which we have studied intensively has 12 different common names and, in French, it is referred to as black sucker (Fr. meunier noir). A second problem is illustrated by code 7130 which refers to trout. Lake trout would be found in a different habitat than brook trout and may have different radionuclide levels. Groupings at the family or genus (or other higher) levels would be useful if the data could be broken down into species at the next lower level.

   Action: Details are provided in Appendix C of this report where definitions and new codes are described in detail. Information is reported in the fashion of a data dictionary similar to the CANUT data dictionary.

Table 1 (continued)
Complications encountered during data entry work.

713. Sample Treatment.
See Progress Report: Nov., p. 15; Jan., pp. 4, 13-2 to 13.3.
Problem: Need more options such as field treatments, sample preservation, collection method, lab treatment (for biological data). Also the place in the data hierarchy needs to be altered from the 700 level to the 1000 level. Complications in this area were identified early in this work when compiling and coding water quality data.
Action: New codes were defined by the Saskatchewan Research Council to permit progress to be made. The codes provided by CANUT specifications were used as much as possible (See NUTP Data Standards Manual). New codes were defined to augment those already defined (e.g. See Progress Report: Jan., p. 13-5). In particular, the number of treatments is insufficient. In some cases the description should be more specific. In other cases some categories are missing.

1001. Measurement Type.
See Progress Report:Nov., p. 15.
Problem: The NAQUADAT data dictionary does not contain all parameters needed for coding both water quality and biological data (e.g. radionuclides).
Action: New NAQUADAT codes were officially assigned and defined.

1002. Laboratory Number.
See Progress Report: Jan., p. 4.
Problem: Values for this data element was not available.
Action: A field was permitted in both the data entry forms and the computer filer for this variable. No entries were made however. Later a variable was defined, by NUTP officials, called the Data Source Code. A field was included in both the data entry forms and the computer files for this. The value for the Saskatchewan Research Council was 231.

1103. Units of Measurement.
See Progress Report: Nov. p. 15.
Problem: The given list of codes for units of measurement is not adequate.
Action: New codes were defined by the Saskatchewan Research Council to augment those given for the CANUT database.

Table 1 (continued)
Complications encountered during data entry work.

1104. Quality.

See Progress Report: Nov., p. 15; Jan., p. 4.

Problem: Page 7 of the "data standards manual" says that quality in CANUT is synonomous with the accuracy of the measurement. Quality of the data is an indication of how close the reported data value is to the "true" data value. On page 8, it becomes clear that it is precision, not accuracy, that is to be recorded as quality. This point becomes particularly important for biological data where it is very difficult to determine accuracy (other than accuracy of the instrumentation). There is no recognized standard material (e.g. a freshwater fish spiked correctly with known quantities of radionuclides) that a lab can use to determine the accuracy of its overall analytical method including ashing. Secondly, "good" laboratories do know their precision in general terms but even "good" laboratories do not know the precision for each sample. Unfortunately, replicates are not always possible because the amount of sample may be too small or the funding of the study may be too small. In SRC 's experience, the precision can vary from 15% to 50% for wet ashed samples close to the detection limit and this variation is not directly proportional to the closeness to the detection limit. When the general error of the method is applied to an individual value it could be quite different than the true precision error for that sample.

The quality element given in the manual does not tell the data user that the variation in the precision may be quite high. The entire question of data quality is very important and also difficult for biological specimens.

Action: No values were entered in this field on the data entry forms. Use was made of the "precision" field associated with quantitative values given on the data entry forms and in the computer files. In most cases, the quality field was either blank or zeros in the computer files.

---

## 2.6 Entering Data Into The Computer

Information on the data entry forms was made available for data entry into a microcomputer system. The data entry forms, described above and shown in Appendices C and D, were collected into batches that were convenient for the coding technician.

The file structures had previously been defined and tested in anticipation of adding data into the dBASE II database management computer files. Some technical details and examples of file structures are described elsewhere in this report. A relatively straight foreward user's manual such as Selected Reference #19 should be studied and used to expedite the use of the computer system.

Data entry is relatively simple with dBASE II commands such as APPEND. In cases where successive records have constant data values in specific fields, it is convenient to use the following command sequence:

```
SET CARRY ON
APPEND
```

This option causes the previously entered record to be carried foreward, together with all the data values for each field. In this case, changes to the values are entered from the keyboard and the "edited" record is appended to the file.

This option is extremely useful and efficient for some data entry forms used as part of this study.

## 2.7 Size of Computer Files

Table 2 summarizes the number of records and the number of bytes of information in each file.

Overall, there are a total of 1487 records entered into 11 files. These files contain about 160,000 bytes of data.

The capacity of the floppy disk is about 320K bytes so that mass storage is not a problem for these files.

Other data and program files are however associated with the database files. These include index files to aid random access and sorting, and report form files to aid in producing relatively readable and formatted lists of data. As well, the dBASE II software is resident on the mass storage system. All data storage requirements for data files and associated program files must be taken into account when planning the use of this system.

In summary, no problems were encountered with this system due to file sizes.

Table 2
Size of computer files containing proprietary information.

| File Name | No. of Records | Size of File (Bytes) |
|---|---|---|
| TABLE01 | 1 | 1,024 |
| TABLE02 | 1 | 1,024 |
| TABLE03 | 3 | 1,536 |
| TABLE04 | 72 | 6,144 |
| TABLE05 | 13 | 512 |
| TABLE06 | 13 | 3,584 |
| TABLE07 | 231 | 31,744 |
| TABLE08 | 1,015 | 90,112 |
| TABLE09 | 106 | 20,480 |
| TABLE10 | 13 | 2,048 |
| TABLE11 | 19 | 1,536 |
| Totals: | 1,487 | 159,744 |

# 3. THE MICROCOMPUTER SYSTEM

## 3.1 Introduction

An IBM XT microcomputer system was selected to be the principal element for this prototype study (See Figure 2). A considerable amount of documentation is available from the manufacturer covering the technical aspects of this computer (See Selected References: 12, 13, 14, 15).

An EPSON dot matrix printer was selected for use in conjunction with the computer (See Selected Reference: 21).

A MODEM by Develcon Electronics (See selected Reference; 22) was selected for data communications purposes between the microcomputer and EMR's host computer in Ottawa.

A software package called Crosstalk XVI was selected to run on the IBM XT computer to perform data communications functions.

The major software packages (See Selected References: 19, 27) chosen for testing the prototype database management operations required for this project were:

1. dBASE II assembly-language relational database management system, and

2. Lotus 1-2-3 spreadsheet and information management system software.

These software packages were found to be relatively self-teaching. In some cases tutorial software was separately available.

## 3.2 Rationale for Hardware and Software Selection

As the use of computers becomes more common in offices problems are created as to how computers should be used. The trend is to provide a terminal as close to the person using it as possible. This can be solved in large organizations that have a central computer system by placing a dedicated terminal where it is required. This approach becomes self limiting for two reasons: 1) there is a maximum number of terminals that can be connected to the central computer, and 2) the central computer has only so much capacity and the more users, the less computer capacity each user is allowed within a given time frame.

An examination of the work performed on the central computer shows that a number of the tasks can be performed on smaller self-contained computer systems. Such tasks as data collection, data editing and simple data analysis can all be performed without reference to the central computer system. Rather than adjusting the user's work flow to suit the requirements of the central computer, the user can use the small computer system as a tool. This does not exclude the central computer, rather the central computer is used for the

applications that require large amounts of data storage and large amounts of computer power for data analysis.

### 3.2.1 Hardware

There are an overwhelming number of options and manufacturers available in the market. The capabilities vary considerably and even if you know what your requirements are, there still will be several manufacturers with comparable products. Availability is a major factor in making a final choice. The more commonly available a product is, the more options there are in obtaining support and maintenance. As the technology in this industry is changing so rapidly another requirement was that the hardware should be viable and upgradeable for at least three years. A commercially successful hardware product would also ensure the availability of a large pool of inexpensive software products.

The requirements mentioned above narrowed the manufacturers down to IBM. The XT model was chosen over the PC because of its greater flexibility and ease of use. The hardware options included a large additional memory (e.g. 512K bytes), a parallel and serial communications interface and a clock.

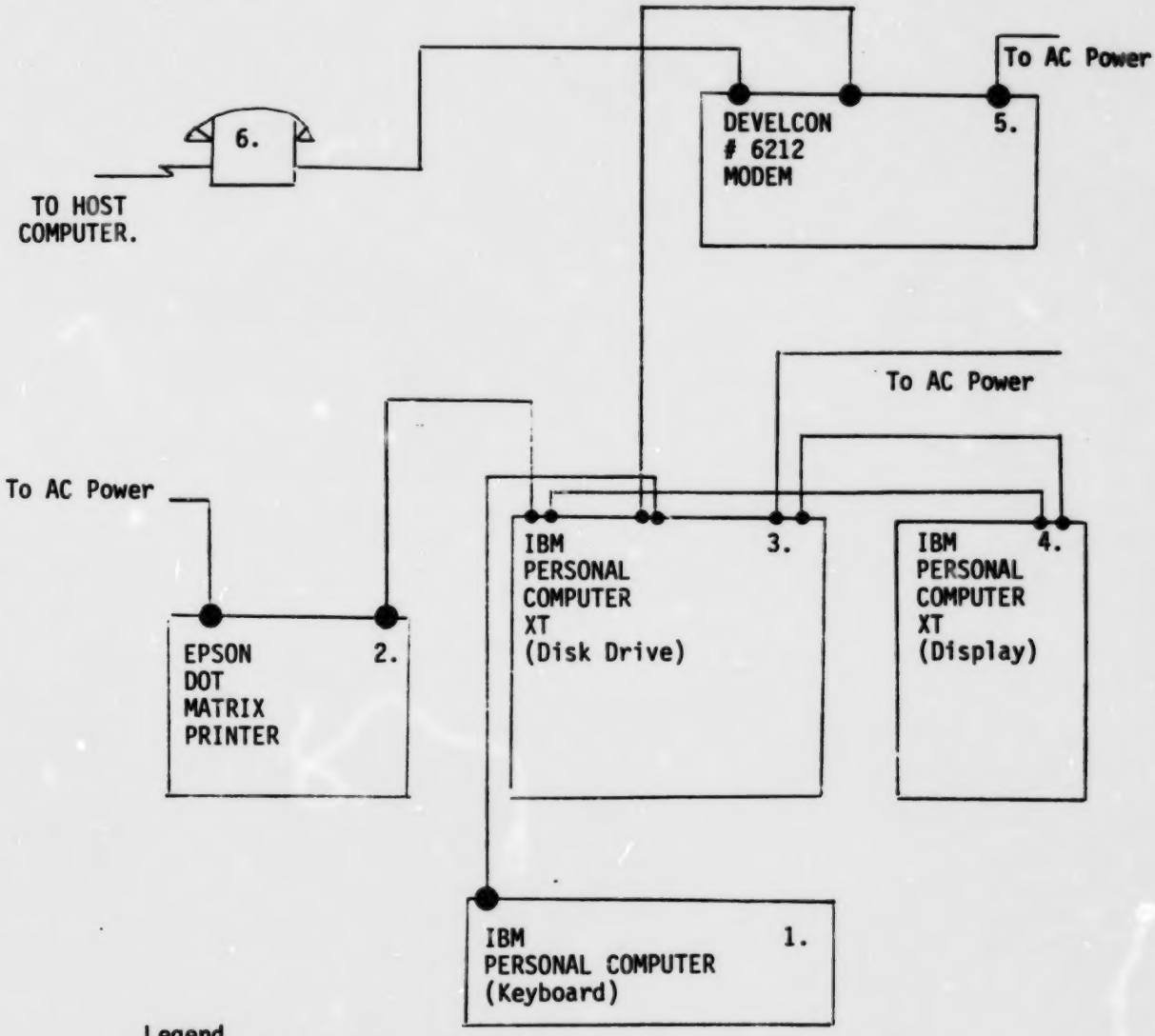
Computers and communications are a natural mix. A modem was required to connect the small computer, via a standard telephone, to any other computer. The Develcon 6212 modem will store, as well as dial the telephone number. These communications options (as well as the options referred to earlier) greatly expand the locations where the equipment can be installed and used successfully.

### 3.2.2 Software

The software chosen performed a subset of functions that were considered essential for this project. These were: a spreadsheet (Lotus 1-2-3) package; a database (dBASE II); a communications package (Crosstalk XVI); and a wordprocessing package (Perfect Writer). To introduce the system to new users a small utility program (Prokey) was used to set up an umbrella function. A training module for dBASE II was purchased.

Very good introductory books have recently become available for both dBASE II and Lotus 1-2-3 software packages. Both of these software products are very powerful. A substantial amount of time is required for the user to become proficient. They can be customized for particular applications so that the end user can be isolated from most of the software's complexity. Published material will help explain these packages to new users.

By the fall of 1984 there will be substantial improvements in both of these products. The new improvements will be initially only for the IBM family of computers. The improvements will ensure that the software is using all of the power and the features available on these computers.




Legend

| Component | Serial/Identification |
|---|---|
| 1. | PN: 1801449<br>NB: EC192 |
| 2. | Model FX-80<br>Serial # 401104 |
| 3. | Model 5160<br>Serial # 0040249 |
| 4. | Model 5151<br>Serial # 0040988 |
| 5. | S/N # 01921SS90B |
| 6. | Telephone (e.g. SaskTEL). |

**Figure 2. Schematic diagram of major hardware components in the microcomputer system.**

# 4. FILES OF PROPRIETARY DATA

## 4.1 Introduction

In Chapter 2 of this report eleven data entry forms and the corresponding dBASE II data files were briefly described (i.e. TABLE01 to TABLE11 inclusive). Information concerning these files and the contents of these files is listed in Appendices F through P inclusive.

The objectives of this Chapter are to:

1. Display the proprietary data which is being provided through this contract work, both in the form of computer files and as listings on paper.

2. Show the structure of each dBASE II file.

3. Show examples of several dBASE II commands which are useful for displaying, editing, locating specific data, and for selecting specific subsets of information from the files and joining two files to create a third file.

## 4.2 Index To Data Listings

Table 3 provides cross-reference information to help associate specific dBASE II files with Appendices in this report.

The table shows that the structure of each file on the microcomputer is given in the Appendices. The contents of each file have been listed. The data listings were obtained either by the use of the LIST or by the REPORT commands.

Certain files contain more fields than can be readily listed across a page in an easy to read format. For these cases, reports are formatted to be printed in two or three parts (e.g. TBL09-1, TBL09-2, TBL09-3 in Appendix N).

## 4.3 File Structure Listing

The structure of each database file is listed. The structure record comprises the field number, the field name, the type of data (e.g. C = character, N = numerical), the width of the field, and the number of decimal places to be stored (if type = N).

Information was compiled independently in Appendix E to further cross-reference the field names for each file with the official CANUT database data elements.

This information is given for the convenience of others that may wish to use these files.
It was found useful to include the data element number from the CANUT

database specifications in the assigned field name (e.g. EASTNG708: Easting, Element number = 708). This provided a useful convention for cross-referencing CANUT's data elements with field names in dBASE II files.

About 26 new variables have been defined to augment the data elements in the CANUT database. These are identified in Appendix E by an asterisk (*). In Appendices F to P they are identified by an asterisk in the column headings and generally by a colon (:) within the field name in the structure listing.

Table 3.
Index to data listings and Appendices.

| Appendix | Source File | Display Structure | Report Form File | Data Listing |
|---|---|---|---|---|
| F | TABLE01 | X | TBL01 | X |
| G | TABLE02 | X | TBL02 | X |
| H | TABLE03 | X | ----- | LIST |
| I | TABLE04 | X | ----- | LIST |
| J | TABLE05 | X | TBL05 | X |
| K | TABLE06 | X | TBL06-1 | X |
| | | | TBL06-2 | X |
| L | TABLE07 | X | TBL07-1 | X |
| | | | TBL07-2 | X |
| | | | TBL07-3 | X |
| M | TABLE08 | X | TBL08-1 | X |
| | | | TBL08-2 | X |
| N | TABLE09 | X | TBL09-1 | X |
| | | | TBL09-2 | X |
| | | | TBL09-3 | X |
| O | TABLE10 | X | TBL10 | X |
| P | TABLE11 | X | TBL11 | X |

## 4.4 Report Form Files

The identification of report form files which were used to produce formatted listings are available for all source files except TABLE03 and TABLE04.

For these two exceptions, the LIST command was used to print the data found in the files. This command is useful because it causes the record number to be printed (on the left hand side of the page) in addition to the data.

This is convenient if the files require editing. The EDIT command requires that the record number be given.

Report form files can be readily identified when a listing of the file directory is obtained. The report form file names are followed by a ".FRM" extension (e.g. TBL09-2.FRM).

The REPORT command is used to create the report form files and is also used to process these files. This command has many features. It can be used to control the format (e.g. left and right margins, lines per page), the selection of data from the source file, and it is able to process up to 24 fields.

The format of the data listing must be designed in a way that makes use of the printer features as well (e.g. characters per line).

It was found convenient to first manually produce a draft design of a specific form to be printed. Following this, the appropriate parameters could easily be entered to satisfy the REPORT requirements.

Revisions to the report form files required the use of the line editor (i.e. EDLIN) which is available as part of the Disk Operating System (DOS) implemented on the computer.

This requires some knowledge of EDLIN commands and access to the DOS manual. This is inconvenient in that one must QUIT the dBASE II system to operate EDLIN. Users who are familiar with this would generally find few practical problems in editing report form files, although care must be exercised.

## 4.5 Data Listings

The major part of these Appendices comprise many pages of data generally displayed in columns with suitable headings. Some reports of data are in two or three parts, depending on the source file being processed.

The field names (e.g. See the file structure listing) are often abbreviated or coded so that they may not readily be related to specific data elements in the CANUT database. In dBASE II the field names may be up to 10 characters long.

Appendix E provides a complete cross-reference of field names used in dBASE II files and the data elements in the CANUT database.

## 4.6 Proofreading The Data

Data listing were produced and returned to the biologist who provided the data for this project. The data listings were designed in such a way that the sequence of data items closely followed the sequence of data on the data entry forms.

This was a convenience to the technician responsible for comparing the computer listing with the original data entry forms.

Another feature that was incorporated to aid proofreading and editing the data files was the addition of a field to each file, called the coding form page (i.e. CFPAGE). Each data entry form sheet was uniquely numbered. This sheet number was entered into the computer files. By sorting the computer files on the CFPAGE field it was possible to produce a listing that was easy to cross-reference with the original data entry form.

Upon completion of the proofreading and verification stage of work, the computer listings were returned to a computer operator to permit editing the computer files.

## 4.7 Editing the Computer Files

Commands in dBASE II permit several options for editing.

It was found useful to use the LOCATE command to find the record number for the record where a change was to be made. This was followed by use of the EDIT command. A full-screen editor operation is permitted. Specific keys on the keyboard are used to control various functions to accomplish editing.

When the user becomes familiar with these options, then editing becomes relatively simple and efficient. The response time of the computer to the LOCATE command depends partly on the size of the file and on whether the file is indexed or not. Indexed files permit relatively quicker access to specific records to aid locating and editing specific records.

Several cycles of the proofreading-editing operation may be required, depending on the project's specifications and the quality control procedure used to validate the computer files. In some cases use can be made of computer functions or special self consistency programs to check data in files (e.g. test the limits or range of data in specific fields; check interrelationships between two or more values).

## 4.8 Computer Communications

In February 1984 a temporary file of data was created on EMR's computer using TXTEDIT and the software package called CROSS-TALK which was implemented on the IBM XT microcomputer. The water quality data were used in these tests.

The procedure was basically to:

(1) Select water quality data (e.g. from TABLE04) in dBASE II files residing on the IBM XT microcomputer.

(2) Open a file on EMR's computer in Ottawa.

(3) Transmit data from the IBM XT and store on EMR's computer.

(4) Close the file on EMR's computer.

(5) LOGOUT

(6) LOGIN and open the file on EMR's computer.

(7) Copy the data on EMR's computer file and record the data on the IBM XT microcomputer.

It is expected that a transfer of all eleven dBASE II files from the IBM XT to EMR's host computer will be completed as part of the demonstration of the microcomputer system in May 1984 in Ottawa.

## 4.9 Joining Files

The JOIN function is reported to be one of the most powerful commands in dBASE II. It allows two database files to be joined together to form a third database file whenever some criterion is met (See Selected Reference: 19, pp. 82-83, 93-95).

A three-step example is given below. Figure 3 is a diagram which shows the relationship between several database files in a sequence of join operations. The results of this example can be verified by comparing results listed in Appendix Q with data in the source files (Appendices L, M, N for TABLE07 to TABLE09 inclusive).

1. The first step was to select a subset of data from TABLE09 and copy it into TABLE13. All the records in TABLE09 are to be checked to see if SMPL704:1 (i.e. 1st Sample Identifier) equals 58. If it does then copy the record into TABLE13.

   This is done by using the following commands:

```
USE TABLE09
COPY TO TABLE13 FOR SMPL704:1='58'
```

Result: A display of TABLE13 (Appendix Q) shows that 1 record met this criterion.

2. The second step in this example was to create TABLE14 by selecting the value of CFPAGE and SMPL704:1 from TABLE13 and selecting CFPAGE and MTRAL1101 from TABLE08 when SMPL704:1 equals SMPLID704.

This is done by the following dBASE II commands:

```
USE TABLE13
SELECT SECONDARY
USE TABLE08
JOIN TO TABLE14 FOR P.SMPL704:1=SMPLID704;
FIELD P.CFPAGE, CFPAGE, MTRAL1101, P.SMPL704:1
```

Result: A display of TABLE14 (Appendix Q) shows that 3 records met this crierion.

3. The third step in this example is to create TABLE15 by selecting the value of CFPAGE, SMPL704:1 and MTRAL1101 from TABLE14 and selecting CFPAGE and SPECIE:15 from TABLE07.

This is done by the following dBASE II commands:

```
USE TABLE14
SELECT SECONDARY
USE TABLE07
JOIN TO TABLE15 FOR P.SMPL704:1=S.SMPL704:1;
FIELD P.CFPAGE, S.CFPAGE, P.MTRAL1101, P.SMPL704:1, SPECIE:15
```

Result: A display of TABLE15 (Appendix Q) shows that 3 records meet this criterion.

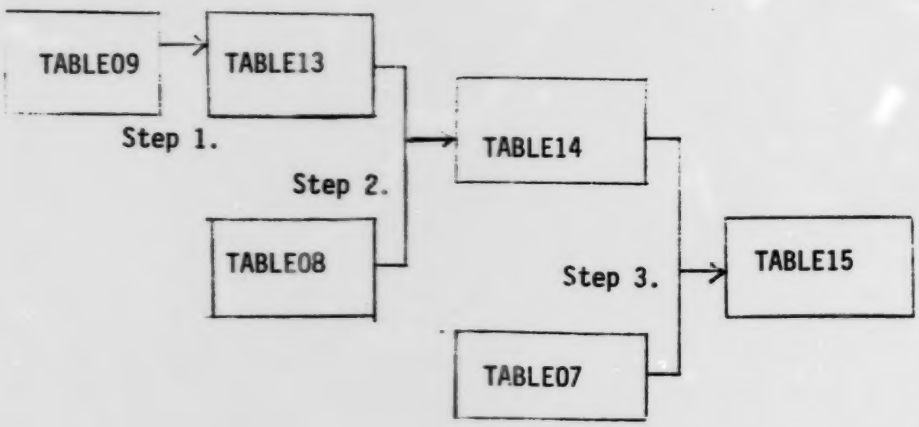



**Figure 3. Relationship of six files used in the example showing the join command.**

## 5. SUMMARY AND CONCLUSIONS

The goal of this project was to provide a means to expedite the entry of data concerning uranium tailings research in Canada into the CANUT database. This has been accomplished. Work involved the design and testing of a practical prototype computer-assisted procedure using proprietary information made available by the Saskatchewan Research Council.

Commercially available IBM XT microcomputer equipment was selected for this project together with proven and adaptable database software (i.e. dBASE II). This combination of hardware and software provided some important key ingredients to form the basis of a very useful data processing "tool." This tool is helpful for many applications including organizing, transforming, cross-referencing, checking, verifying, changing, and communicating selected data.

This versatile system is in the form of a single-user work station. It can be used to communicate to other computers. It is transportable (but not "suitcase" portable). One criterion for the choice of equipment was that service and maintenance should be readily available. This criterion was one of the major reasons for selecting IBM equipment.

Much effort was expended to select and compile proprietary data at the Saskatchewan Research Council that was relevant to the NUTP. Much has been learned in regard to compiling data to conform with the specifications of the CANUT database.

The CANUT database specifications were used as much as possible for this study. Additional variables were, however, defined which augmented the CANUT specifications as given in the Data Standards Manual.

Specific details are included in this report.

It may be found that the dBASE II files contain more detailed information than that required by the NUTP.

With the functions inherent in the available software and hardware it is expected that a subset of the reported data could readily be extracted for the National Uranium Tailings Program.

Alternatively however, if environmental studies are to be undertaken at or near tailings sites, then the capability to effectively process biological and aquatic radionuclide data would be an asset.

At this time the terms of this contract have been met. The prototype development work has been successfully undertaken. Time and funding have not, however, permitted a full investigation of all the capabilities of the equipment and software, nor have all of the practical problems associated with data compilation and data entry into the CANUT database been resolved.

A very good start has however been made. Examples are given which should also help suggest applications to future users of this type of system.

Interesting and useful work could be suggested to extend or continue aspects of the work begun to date. Work areas might involve:

1. Processing relatively large volumes of proprietary and non-proprietary data.

2. Evaluation of the quality, accuracy, confidence limits of specific sets of data taking into account the source, sampling techniques, laboratory methods, and the intended end use of the data.

3. Continuation of the work of enhancing the capabilities of the CANUT database by more clearly specifying the needs of potential practical users.

4. Modifying and refining the CANUT specifications as reported in the data standards manual to overcome some of the limitations discovered during this study.

## 6. SELECTED REFERENCES


1. CONTROL DATA CORPORATION. 1982. Intercom Version 5 reference manual. CDC Operating System. NOS/BE 1. Control Data Corporation. Manual number 60455010.

2. INTEL CORPORATION. 1983. System 2000$^{R}$. Professional User's Guide. Intel Corporation. P.O. Box 9968, Austin Texas 78766. Manual number S2K-EU-ALL # 221144.

3. EMR. 1983. Timesharing User's Guide. Computer Science Centre. Dept. of Energy, Mines and Resources. govt. of Canada. Ottawa. Canada. Prepared by: User Services, Computer Science Centre. November 1983.

4. CONTROL DATA CORPORATION. 1983. System 2000$^{R}$. Language specifications manual for the QUEST language. Release 2.80. CDC NOS and NOS/BE. Intel Systems Corporation. P.O. Box 9968. austin Texas 78766. Manual number LSM-QUEST-CDC, # 221126, PD10P.

5. EMR. 1982. CSC [Computer Services Centre] User's Guide. Dept. of Energy, Mines and Resources, Govt. of Canada, Ottawa, Canada. Prepared by: Customer Service Division, Computer Science Centre. Chapters: I to IX, Appendices: A - E.

6. EMR. 1978. TXTEDIT User's Guide. Computer Science Centre. Dept. of Energy, Mines and Resources. Ottawa. Canada. Prepared by : Customer Services Division. Printed 20/07/78. Chapters: 1 - 12.

7. ENVIRONMENT. [1981?]. NAQUADAT data dictionary. Dept. of the Environment, Inland Waters Directorate, Water Quality Branch, Monitoring and Surveys Division, Ottawa, Canada.

8. CONTROL DATA CORPORATION. Revised 05-17-82. NOS/BE VERSION/ Reference Manual. CDC Computer Systems: Cyber 170, Cyber 70; Models 71, 72, 73, 74, 6000. Control data Corporation, Publication and Graphics Division, 4201 North Lexington Ave., St. Paul, Minnesota 55112.

9. SYSTEMHOUSE. 1983. National Uranium Tailings Program Data Standards Manual. February 4, 1983. Revised: June 28, 1983. 97p.

10. CANMET. 1983. CANUT User's Manual. Dept. of Energy, Mines and Resources. Ottawa. Canada. 30p.

11. SASKATCHEWAN ENVIRONMENT. 1983. Water quality-dictionary [ESQUADAT]. 31/05/83. Alphabetical listing of dictionary as follows:
    (a) Sorted listing of dictionary by paramaeter number, pp. 1 - 307.
    (b) Natioanl Water Quality Data Bank (NAQUADAT), alphabetical dictionary index (31/05/83), pp. 1 - 27.
    (c) Conversion factors for various units, pp. 1 - 3.

12. ANONYMOUS. 1981. BASIC. IBM Personal Computer Hardware Reference Library (#6025010). (BASIC by Microsoft). IBM Personal Computer, P.O. Box 1328-C, Boca Raton, Florida 33432. Chapter-pages: 1-6, 2-49, 3-44, 4-299, Appendices A-K inclusive.

13. ANONYMOUS. 1983. Technical Reference. IBM Personal Computer XT Hardware Reference Library (#6936808). IBM Personal Computer, P.O. Box 1328-C, Boca Raton, Florida 33432. Chapter-pages: 1-295, 2-11, Appendices A-I inclusive.

14. ANONYMOUS. 1983. Disk Operating System (DOS). IBM Personal Computer Series (#6024061). IBM Personal Computer, P.O. Box 1328-C, Boca Raton, Florida 33432. Copyright International Business Machines Corp. 1983. Copyright Microsoft, Inc. 1983. Chapter-pages: 1-16, 2-52, 3-48, 4-23, 5-13, 6-146, 7-46, 8-7, 9-10, 10,28, 11-30, 12-67, 13-11, 14-27. Appendices A-K inclusive.

15. ANONYMOUS. 1983. Guide to Operations. IBM Personal Computer XT Hardware Reference Library. IBM Personal Computer, P.O. Box 1328-C, Boca Raton, Florida 33432. Copyright International Business Machines Corporation 1983. Chapter-pages: 1-24, 2-80, 3-38, 4-22, 5-14.

16. ANONYMOUS. 1983. Crosstalk XVI. Data communication software system. Serial No. 44281. Microstuf, 1845 The Exchange, Atlanta, Georgia 30339. (Ph. (404)952-0267). 182p.

17. ANONYMOUS. 1983. Users Handbook. Introduction to dBASE II. American Training International, 3770 Highland Ave., Suite 201, Manhatten Beach, CA 90266.

18. ANONYMOUS. 1983. dBASE II on-disk tutorial. Ashton-Tate 10150 West Jefferson Boulevard, Calver City, CA 90230 (Ph.(213) 204-5570).

19. ANONYMOUS. 1982. dBASE II. Assembly-language relational database management system (Serial No. 210111). Ashton-Tate 10150 West Jefferson Boulevard, Calver City, CA 90230 (Ph.(213) 204-5570).

20. WADE, H.H. and DOBYNS, B. 1983. Perfect writer/speller user's guide. Copyright by Perfect Software, Inc. 379p. Perfect Software, 1400 Shattuck Ave., Berkeley, California 94709.

21. KATER, D.A. 1983. EPSON FX-80 Printer user's manual. Copyright 1983 by EPSON American Inc., Torrance, California 90505. 323p.

22. ANONYMOUS. [1984]. 6212 Operator's Manual. The DEVELCON 6212 MODEM. DEVELCON Electronics, Doylestown, PA. (Ph. (215) 348-1900, (800) 528-8423, TWX 846-389). 21p.

23. DYCK, J.H., McKENZIE, C.T. and TONES, P.I. 1983. Acquisition and transformation of Saskatchewan Research Council proprietary data by use of a prototype microcomputer system for use with the Canadian Uranium Tailings Database (CANUT). Contract progress report for November, 1983. SRC Publication No. R-782-6-C-83. 17p.

24. DYCK, J.H., McKENZIE, C.T. and TONES, P.I. 1983. Acquisition and transformation of Saskatchewan Research Council proprietary data by use of a prototype microcomputer system for use with the Canadian Uranium Tailings Database (CANUT). Contract progress report for December, 1983. Saskatchewan Research Council, Saskatoon, Sask. 8p.

25. DYCK, J.H., McKENZIE, C.T. and TONES, P.I. 1984. Acquisition and transformation of Saskatchewan Research Council proprietary data by use of a prototype microcomputer system for use with the Canadian Uranium Tailings Database (CANUT). Contract progress report for January, 1984. Saskatchewan Research Council, Saskatoon, Sask. 43p.

26. DYCK, J.H., McKENZIE, C.T. and TONES, P.I. 1984. Acquisition and transformation of Saskatchewan Research Council proprietary data by use of a prototype microcomputer system for use with the Canadian Uranium Tailings Database (CANUT). Contract progress report for February, 1984. Saskatchewan Research Council, Saskatoon, Sask. 12p plus Appendices A-G.

27. ANONYMOUS. 1983. LOTUS 1-2-3 User's Manual. For the IBM Personal Computer, the XT and the COMPAQ portable computer. Release 1A. Copyright 1983 Lotus Development Corporation, 161 First Street, Cambridge, MA 02142. (ph. (617) 492-7172). 362 p.

# APPENDIX A

## STATEMENT OF WORK FROM THE CONTRACT.

Objective:

The objectives of this project are to design, develop and test a practical system (using microcomputer technology) which will have the capability of transforming published data found in manual files into data that is in a computer processable format. The goal of this is to provide a means to expedite the entry of data concerning uranium tailings research in Canada into the Canadian Uranium Tailings (CANUT) database as part of the National Uranium Tailings Program (NUTP).

Statement of Work

1. The contractor will select some proprietary data available as unpublished material at the Saskatchewan Research Council, sets of data relevant to the National Uranium Tailings Program. The contractor will be responsible for selecting from this proprietary data as wide a variety of data types as possible. Typical of such data will be biological data, and radioneuclides ( in aquatic organisms) data.

   The data will be acquired by the NUTP and entered into the existing CANUT database through the prototype microcomputer developed as a result of this contract.

   The prototype developed must be able to use non-proprietary data at a later date.

2. The contractor will select and acquire access to a suitable microcomputer system including hardware, software and communication interface.

3. The contractor will define all specifications for the microcomputer system that are suitable for conforming these data with the data item and data type specifications for the CANUT database.

4. The contractor will create one or more computer processable files using the microcomputer system.

5. The contractor will transmit from the files outlined in number 4 above by telecommunication facilities to the computer where the CANUT database is currently implemented (e.g. CDC/Cyber 74 at EM&R, Ottawa). The contractor will be responsible for ensuring that this transmittal process is achieved without problem.

6. The contractor will provide an evaluation of the performance of the prototype microcomputer based system for use with the CANUT database.

In summary for this program, the contractor will design, develop and test a data conversion system. This system will be used to change data found in the manual file into a computer processable format. The major element in this system will be a microcomputer which will aid data entry, data formatting, data validation, and data communications. The workstation aspect of this system will be a dedicated, standalone operating unit that could be implemented at various places.

APPENDIX B

COPIES OF PROGRESS REPORTS FOR THE PERIOD NOVEMBER 1983 TO FEBRUARY 1984 BY DR. P.I. TONES.

APPENDIX B

PART 1 of 3

# EXCERPTS FROM CONTRACT PROGRESS REPORT FOR NOVEMBER 1983

by

Dr. P.I. Tones (Biologist)

DATA ITEMS

(1) Item of Data

Numerical result (Value)
Units (two parts)
(a) e.g. BQ/G, PCI/G etc.
(b) e.g. ash weight, dry weight, wet weight, fresh weight.
Element measured (e.g. uranium, lead-210, polonium-210 etc.)

(2) Date and Time

Year
Month
Day
Hours[1]
Minutes[1]

Note:

[1] Hours and minutes may have no biological importance but BIODAT arbitrarily uses minutes to provide a unique identifier for each fish collected at one time so that it can be cross-referenced to ESQUADAT.

(3) Location

Latitude & Longitude
UTM coordinates
Lake name (also stream names)
Depth
Flow type (e.g. lake, stream, riffles, pool)[2]
Sediment type (e.g. organic, sandy, clay, stones)[2]

Notes:

[2] Important for benthos and vegetation samples.

(4) Organism

Common name
Genus and Species[3]
Individual or Composite of n individuals[4]
Tissue or Organ (e.g. skin, bone, flesh, skin & flesh, whole, cross-section, kidney, liver, gonads)
Trophic level (e.g.detritivore, herbivore, producer carnivore (primary, secondary, tertiary), omnivore)

Notes:

[3] For plankton, one sample could contain fifty species while one fish could contain many samples if each organ or tissue is considered as a sample.

[4] If each fish had a unique number then levels in tissues of the same fish could be compared.

(5) Field Methods

Sampling method (e.g. beach seine, fish trap, gill net, dipnet, Ekman grab, artificial substrate, surber sampler)
Sample treatment (e.g. washed or unwashed (with details), starved or not starved, eviscerated or not eviscerated, separated into tissues (in the field), preservation (frozen, dried, other))

(6) Supporting Biological Data

Length (e.g. value and units)
Weight (e.g. value and units)
Sex (e.g. male or female or immature or unknown)
Ages (e.g. years)
Reproductive state (e.g. spawning or non-spawning)

(7) Analytical Methods

Name of laboratory
Location of laboratory
Sample preparation (e.g. dry, ashed, wet ashed, other)

(8) Technique

Uranium (e.g fluorometer, neutron activation, X-ray diffraction, other)
Radium -226 (e.g. barium-radium sulphate precipitation, radon emination, other)
Lead-210 (e.g. bismuth extraction, other)
Polonium-210 (e.g. silver deposition, other)
Total Thorium (e.g. neutron activation, other)
Thorium isotopes (e.g. electroplating, other)

(9) Error Statistics

Precision (e.g. analytical and sample preparation errors)
Detection limit

EXAMPLES OF PROBLEMS TO BE RESOLVED WHEN APPLYING THE DATA STANDARDS MANUAL TO BIOLOGICAL DATA

1. Sample Treatment

There are many field treatments for biological specimens in addition to sample preservation covered in C713. Other useful information includes: eviscerated or not, washed or not, starved or not (e.g. insects), separated into tissues before freezing or frozen whole, composite samples or single specimen.

Collection method is also important because each method usually has an unavoidable bias. Sample treatment in the laboratory such as wet ashing must be identified either here or with the measurement type.

2. Measurement Type

The NAQUADAT Dictionary of Parameter Codes probably does not contain methods appropriate to biological tissues. These will have to be added before biological data are entered.

3. Supporting Biological Data

Each fish sample should be supported with information on the length, weight, age, sex, and spawning condition. Information on the composition of plankton and, possibly, benthic samples is necessary. There may be other examples for other types of biological material.

4. Units

The list of unit abbreviations and codes does not include the type of weight (e.g. ash weight, dry weight, fresh weight (unfrozen, intreated), wet weight). These have not been standardized to only one type; all types can be found in the literature. Conversion factors between weights can change by species, habitat, and age. It is very important that the original type of weight be indicated so that ash weights and dry weights, for example, will not be combined when a statistical summary is requested.

5. Sample Type Codes

The sample type codes are the most serious problem for entering biological data.

Although the codes are hierarchical in structure they do not correspond to taxonomic levels which are also hierarchical. For example, code 7500 includes 10 species while the equivalent level, code 7200, lists categories that include millions of species. Category 7240 would group crayfish, zooplankton, and black flies in one group. Such grouping would have little biological meaning.

The sample type codes are too restrictive. For example, code 7100 allows ten species of fish to be entered. There are 177 species of fish in Canada. Radionuclide data will be available for a limited number of species but even these will exceed ten as soon as the SRC data are entered. Code 7240 is far more restrictive.

The sample type code should be developed in such a way that the organism is identified at the species level if this has been possible in the study (e.g. lake trout = 'salvelinus namaycush'). This nomenclature is universally accepted and applies in any language. Anything less will create confusion. For example, the white sucker which we have studied intensively has 12 different common names and, in French, it is referred to as black sucker. A second problem is illustrated by code 7130 which refers to trout. Lake trout would be found in a different habitat than brook trout and may have different radionuclide levels. Groupings at the family or genus (or other higher) levels would be useful if the data could be broken down into species at the next lower level.

6. Quality of Data

Page 7 of the "data standards manual" says that quality in CANUT is synonomous with the accuracy of the measurement. Quality of the data is an indication of how close the reported data value is to the "true" data value. On page 8, it becomes clear that it is precision, not accuracy, that is to be recorded as quality. This point becomes particularly important for biological data where it is very difficult to determine accuracy (other than accuracy of the instrumentation). There is no recognized standard material (e.g. a freshwater fish spiked correctly with known quantities of radionuclides) that a lab can use to determine the accuracy of its overall analytical method including ashing. Secondly, "good" laboratories do know their precision in general terms but even "good" laboratories do not know the precision for each sample. Unfortunately, replicates are not always possible because the amount of sample may be too small or the funding of the study may be too small. In SRC 's experience, the precision can vary from 15% to 50% for wet ashed samples close to the detection limit and this variation is not directly proportional to the closeness to the detection limit. When the general error of the method is applied to an individual value it could be quite different than the true precission error for that sample.

The quality element given in the manual does not tell the data user that the variation in the precision may be quite high. The entire question of data quality is very important and also difficult for biological specimens.

APPENDIX B

PART 2 of 3

EXCERPTS FROM PROGRESS REPORT FOR JANUARY 1984

by

Dr. P.I. Tones (Biologist)

January Progress Report Pat Tones

Microcomputer System for use with CANUT Data Base

Progress

- Received from Saskatchewan Environment a copy of (i) the file descriptions and program documentation from the System Documentation Manual which the System Centre (SASKCOMP) uses, (ii) the detailed manual for the Biological Data System and (iii) data entry forms (this point is repeated from my December report since it didn't go into December report to CANUT).

- Information identifying the proprietary data was entered on a set of four tables describing the tailings site, the study, the sample identification and the measurements. Each table represents a level in the information hierarchy diagrammed in the CANUT manual. When water quality data was entered on these tables, which also acted as data entry forms, a number of problems were identified. By reviewing the tables, some of the problems could be resolved. Those remaining are listed in the next section.

- So far, we have entered all the necessary information pertaining to the tailings site and the study. These levels (tables) are complete for both water quality and biological data. We have entered all the necessary information pertaining to these water quality samples which includes 72 values with associated descriptors (where possible). These are all the water samples that were taken at the time the biological data was collected.

- The SRC analytical methods have been compared to NAQUADAT Dictionary descriptions. For all those that correspond, NAQUADAT numbers have been entered. We have prepared descriptions of our methods, their detec-

tion limits and units. Using this information we have applied for new NAQUADAT numbers (for both water and biological materials) from Dr. Whitlow, Water Quality Branch, Environment Canada (letter appended).

- Because we found the sample treatment (713) table to be inadequate, we have prepared a new dictionary based on field treatments of water samples recommended for specific analytes by the SRC Laboratory (Table 1). Because the field treatment of the sample depends on the analyte to be determined (Table 2), this category was moved from the sample description level to the value-material level. These changes have been made in the microcomputer files only.

- We determined the quality (1104) of some values, particularly radionuclide values but were unable to enter any numbers. A retrieval from the CANUT data base indicated that data on quality has not yet been entered by any data depositor. This problem is discussed in the next section.

Anticipated Problems

When water quality data were fitted to the CANUT data entry requirements, a number of problems which cannot be resolved by us alone were encountered.

(1) Tailings site identifier (1). This is to be the tailings site or containment facility where the sample was taken according to the manual. Beaverlodge Lake was entered because the fish samples were collected there. Although it is contaminated by tailings, it is not a containment facility. Most aquatic biological data collected at uranium mine sites are collected in the water receiving the containment facility effluent

rather than in the facility itself.

(2) The sample treatment (713) category causes two problems. Firstly, the number of treatments listed is insufficient. (a) In some cases, comments should be more specific, e.g. acidification should indicate the acid. A sample to be analyzed for nutrients shouldn't be acidified with nitric acid. (b) Some categories are missing, e.g. adding NaOH. (c) Many samples receive combinations of treatment, e.g. unfiltered but acidified, or filtered and acidified.

Secondly, the sample treatment category (713) is at the wrong level in the hierarchy. This is the most serious problem. A sample usually consists of many subsamples and not one container of water. Each subsample is treated according to the analytes to be measured; that is, the field treatment is associated with the material. For example, one would acidify a sample for heavy metal analysis, leave it untreated for major ion analysis, or add NaOH for cyanide determination. Thus the sample treatment category should be at the 1000 level rather than the 700 level.

(3) Several minor problems arose. How does the CANUT system handle < and > signs and distinctions between blanks and zeros particularly with respect to significant digits.

Intentions for Next Month

- To repeat the process used for water quality data by entering biological data and modifying the tables to fit it. We will change the file in the microcomputer but a request will probably have to be sent to CANUT to modify some coding standards as discussed in November monthly report. Another option is to assess the amount of support information

desired by most CANUT users compared to the amount desired by biologists. The result may be a more detailed file in the microcomputer that is only partly transmitted to Ottawa.

Summary

We are continuing A1, A2 and D in Table 1 on research proposal.

Table 1. New Dictionary of Codes and Definitions for Field Treatment of Samples (#713).

| Code No. | Kind of Sample | Treatment | Preservation Method |
|---|---|---|---|
| 001 | water | unfiltered | no special requirements |
| 002 | water | unfiltered | preserve with 5 mL $H_2SO_4$ per litre |
| 003 | water | unfiltered | preserve with 1% $HNO_3$ |
| 004 | water | unfiltered | preserve with NaOH pellets so that pH >12 (minimum of 1 L required) |
| 005 | water | unfiltered | 1 mL of 5% $K_2Cr_2O_7$ in Conc. $HNO_3$ per 100 mL sample |
| 006 | water | unfiltered | (<1 ppm) fill container to top with sample allowing no air space. Preserve with 1 g ascorbic acid per 300 mL sample. Preserve with NaOH pellets so pH >13 |
| 007 | water | unfiltered | preserve with NaOH pellets so pH >13 (minimum of 1 L required) |
| 008 | water | unfiltered | preserve each litre with 1 g $CuSO_4$ and 5 mL $H_3PO_4$ |
| 009 | | | |
| ⋮ | | | |
| 051 | water | filtered | no special requirements |
| 052 | water | filtered | for each radionuclide determination, preserve 1 L of sample with 10 mL Conc. $HNO_3$. If it is necessary to distinguish between dissolved and suspended species, an additional 1 L must be filtered with a 3 micron filter and acidified to 1% $HNO_3$ |

Table 2. Example of Application of New Sample Treatment Codes to Water Quality Analytes.

| Water Sample Treatment Code | Analyte |
|---|---|
| 001 | $HCO_3$ |
| 001 | $CO_3$ |
| 001 | Ca |
| 001 | Cl |
| 001 | OH with $CO_3$ - $HCO_3$ |
| 001 | Mg |
| 001 | K |
| 001 | Na |
| 001 | $SO_4$ |
| 002 | N, $NO_2$ and $NO_3$ |
| 002 | N, total |
| 002 | $PO_4$, ortho (as P) |
| 002 | $PO_4$, total (as P) |
| 002 | C, total |
| 001 | TDS |
| 003 | Lead-210, total |
| 003 | Ra-226, total |
| 003 | Ra-226, dissolved |
| 003 | Th, color |
| 003 | Th-228, total |
| 003 | Th-230, total |
| 003 | Th-232, total |
| 003 | U, total |
| 002 | N, ammonia |

SASKATCHEWAN RESEARCH COUNCIL

30 Campus Drive, Saskatoon, Saskatchewan, Canada S7N 0X1 Tel. (306) 664-5400 Telex 074-248

January 26, 1984

Dr. Simon Whitlow
Head
Data Systems Section
Water Quality Branch
Environment Canada
10th Floor
Place Vincent Massey
Ottawa, Ontario
K1A 0E7

Dear Dr. Whitlow:

Re: Application for NAQUADAT Numbers

In readying water quality data for the Canadian National Uranium Tailings (CANUT) Program data base, we have found 15 analytical methods used by the SRC Analytical Laboratory that are not the same as methods described in the NAQUADAT Dictionary. We are, therefore, requesting that NAQUADAT numbers be assigned to these methods.

A short summary of each method plus its detection limits and units is attached. All these methods were used for water but three were also used for biological material (primarily fish flesh, bone and skin) which was first prepared by dry ashing. Sheets describing the methods for lead-210, radium, radium-226, total thorium, and thorium isotopes in more detail are also attached. These sheets describe how the method can be applied to water, biological and other samples.

The CANUT manual recommends that the original units be used. These were pCi for radionuclides rather than Bq which are now used.

... 2

Perhaps you could assign one number to cover both water and biological samples. Alternately, perhaps you could assign two numbers at this time so that it wouldn't be necessary to make a second request when we begin entering biological data into the CANUT data base.

We would appreciate receiving these numbers as soon as possible. I can be reached at (306) 664-8173 or my assistant, Colleen Rickard, can be reached at (306) 664-8178.

Thank you for assisting us.

Yours truly,

Patricia Tones
Senior Research Scientist
Environment Sector

PT/drd

Enclosures

Saskatchewan Research Council
Analytical Methods

Lead-210 TOTAL

Extraction of Bi-210 with diethylammonium diethyldithiocarbamate (DDTC) from 2M HCl solution. After evaporation the organic extract is dissolved in nitric acid, diluted with BiOCl precipitated as the final counting form of Bi-210. The quantity of Bi-210 present is determined by beta counting with a low background counting system. The Pb-210 concentration is calculated from the equilibrium existing between it and the Bi-210.

- detection limit for 100 minute count and a reagent count of 0.3 cpm is approximately 0.5 pCi of lead-210.

- see attached sheet for detailed description of methods for water and biological material.

- units are pCi/L for water and pCi/g (ash wt) for biological material.

Radium-226 (Barium sulfate coprecipitation) TOTAL

In this procedure radium is isolated by first precipitating with lead sulfate and then selectively precipitating with barium sulfate. The radium in the precipitate is determined either by alpha spectroscopy or by gross alpha counting if thorium is known to be absent.

- detection limit of 0.1 pCi for a 100 minute count with a background of 0.05 cpm.

- see attached sheet for detailed method description for water and biological material.

- units are pCi/L for water and pCi/g (ash wt) for biological material.

Radium-226 (Radon emanation) TOTAL

Radium is isolated by coprecipitation with barium sulfate. The precipitate is dissolved in alkaline EDTA solution and transfered to a radon bubbler. After a suitable ingrowth period the radon is transfered to a lucas cell and counted on a scintillation counter. Radium-226 is proportional to the amount of radon-222 determined.

- detection limit of 0.1 pCi for a 100 minute count with a reagent blank of 0.2 cpm.

- see attached sheet for detailed method description for water and biological material.

- units are pCi/L for water and pCi/g (ash wt) for biological material.

Dissolved Levels of Radium-226

Use either of the two preceding methods but the sample must be filtered to remove suspended material. The filtering has to be done before the sample is acidified for preservation. Environment Canada and the Atomic Energy Control Board require a 3 micron filter be used. Saskatchewan provincial standards call for a .45 micron filter size. (SRC used a 0.45 micron filter size.)

Uranium (Fluorometry) TOTAL

Uranyl ions produce fluorescence when fused with NaF. Fluorescence is measured with a Turner Fluorimeter and is proportional to uranium concentration.

- detection limit is 0.001 µg

- units are µg/L for water and µg/g (ash wt) for biological material.

- biological material is dry ashed (HASL 1972) dissolved in $HNO_3$ and then analyzed by same method as a water sample.

Thorium (Th-232) (colorimetric method) TOTAL

Thorium is isolated by coprecipitation with lanthanum in both an hydroxide precipitation and a fluoride precipitation. The fluoride precipitation is dissolved and the thorium separated from the lanthanum by extracting with thenoyltrifluoroacetone (TTA) in petroleum ether. The thorium is back extracted with nitric acid and determined colorimetrically with arsenazo III.

- detection limit 0.1 µg/L

- see attached sheet for detailed method description.

- units are µg/L for water*

*We will not be entering biological data.

Thorium Isotopes (Th-232, Th-230, Th-228, Th-227)

The isolation of thorium isotopes employs the same procedure as that used for total thorium. After thorium is back extracted from the TTA extract it is added to an ocalate electrolyte and electro-deposited onto a stainless steel planchet. The individual isotopes are determined by alpha spectroscopy. The prepared planchet must be counted immediately when Th-227 is required, otherwise the Th-228 daughters will interfere.

- detection limits - Th-232 and Th-230, 0.1 pCi
  Th-228, 0.2 pCi
- units are pCi/L for water*

Total Kjeldahl Nitrogen

Colourimetry on auto analyzer. The shaken sample is digested with $HCLO_4$, then neutralized. The resulting solution is mixed with alk phenol, Na nitroprusside, and NaClO (Berthelot reaction). The resulting colour is measured at 650 NM. The detection limit is 0.1 mg/L.

This is the same method as ESQUADAT 07007 except that ESQ.07007 uses $K_2SO_4$ and $H_2SO_4$ for the digestion instead of $HCLO_4$.

Calcium (Ca) TOTAL

- plasma emission spectroscopy
- detection limit 0.05 mg/L
- units are mg/L

Magnesium (Mg) TOTAL

- plasma emission spectroscopy
- detection limit 0.05 mg/L
- units are mg/L

Potassium (K) TOTAL

- plasma emission spectroscopy
- detection limit 0.2 mg/L
- units are mg/L

---

*We will not be entering biological data

Sodium (Na) TOTAL

- plasma emission spectroscopy
- detection limit 0.2 mg/L
- units are mg/L

Total Organic Carbon

Total carbon determined by NAQUADAT method 06006. Total inorganic carbon is determined by NAQUADAT method 06051.

Then: total organic carbon = total carbon - total inorganic carbon

APPENDIX B

PART 3 of 3

# EXCERPTS FROM PROGRESS REPORT FOR FEBRUARY 1984

by

Dr. P.I. Tones (Biologist)

## COMPILATION AND STATISTICAL ANALYSIS OF A DATA BASE ON URANIUM-SERIES RADIONUCLIDES IN AQUATIC BIOTA IN NORTHERN SASKATCHEWAN

There is a relatively large pool of aquatic radionuclide data that are now scattered among several mining companies, government agencies and individuals in diverse forms with varying degrees of accessibility. Collection of these data in standardized form, along with related descriptors or parameters such as location, sampling technique, analytical method, species, tissue and position in the food web will enable statistical analysis and interpretation of the data. Thus, a large amount of data gathered at huge cost could be put into a useful, available form for relatively little additional expense.

This pool of data will be organized in the micro-computer data base using the standard recording format developed by SRC that would include information on location, type of operation (pre-development, under development, operating, abandoned), field technique, analytical technique, analytical laboratory used, species, tissues analysed, individual organism characteristics (sex, age, weight, length), position in the food web, and any other identifying parameters. Once this is accomplished, the data can be analyzed using multivariate statistical techniques such as discriminant analysis for trends in radionuclide content with the various parameters. The results can also be compared with results from other research projects such as the detailed studies on invertebrates and fish in the Beaverlodge area by Dr. S. Swanson.

Such an analysis would try to assess: the compatability of data from different sources collected for different purposes, the amount of support

information that should be stored with the data, geographical areas within Saskatchewan where intensive studies would be most effective, and improvements in the quality of biological monitoring.

With this in mind, a compilation of data on radionuclide levels in aquatic biota in northern Saskatchewan was begun at the Saskatchewan Research Council in August, 1982. Uranium mining companies were very cooperative in releasing data and expressed great interest in the outcome of the work. Environment Saskatchewan was equally cooperative. So far, approximately 13 sources of data resulting in approximately 500 entries have been obtained. The Saskatchewan Health Research Board provided sufficient funds to begin this work on a limited (pilot) scale in 1984.

NEW NAQUADAT CODE ASSIGNMENTS

Environment Canada  Environnement Canada

84.02.27

Water Quality Branch
Inland Waters Directorate
Ottawa, Ontario
K1A 0E7

Your file  Votre référence

Our file  Notre référence

February 16, 1984

Ms. P. Tones
Senior Research Scientist
Environment Sector
Saskatchewan Research Council
30 Campus Drive
Saskatoon, Saskatchewan
S7N 0X1

Dear Ms. Tones:

I regret that a slight error occurred in the list of NAQUADAT code assignments I sent you recently. Because the atomic number of radium is 88 not 86, the 5 radium codes I assigned should begin with 88. The rest of the digits remain the same.

We will make the change here and I would appreciate your altering the codes I sent. I'm sorry for any inconvenience.

Yours sincerely,

S. Whitlow
Head
Data Systems Section

c.c. M. Pun (EMR)



Canada

In order to conserve energy and resources, this paper contains post-consumer fibre.

À cet fin, en conservation de l'énergie et des ressources, ce papier contient des fibres recyclées.

Environment Canada | Environnement Canada
Environmental Conservation | Conservation de l'environnement

Inland Waters Directorate
Water Quality Branch
Monitoring and Surveys Division
Ottawa, Ontario
K1A 0E7

Your file / Votre référence

Our file / Notre référence

February 7, 1984

Ms. Patricia Tones
Senior Research Scientist
Environment Sector
Saskatchewan Research Council
30 Campus Drive
Saskatoon, Saskatchewan
S7N 0X1

Dear Ms. Tones:

As you requested in your letter of January 26, 1984 I have assigned the following parameter codes to designate the methodology you use:

| Method | Water | Biological (fish) |
|---|---|---|
| lead -210 total | 82502 | 82612 |
| radium -226 total ($BaSO_4$) | 86503 | 86613 |
| radium -226 total (radon) | 86504 | 86614 |
| radium -226 dissolved | 86510 | |
| uranium total | 92001 | 92601 |
| thorium total (colorimetric) | 90001 | |
| thorium -232 | 90502 | |
| thorium -230 | 90510 | |
| thorium -228 | 90515 | |
| thorium -227 | 90520 | |
| total Kjeldahl Nitrogen | 07022 | |
| calcium total | 20005 | |
| magnesium total | 12005 | |
| potassium total | 19005 | |
| sodium total | 11005 | |
| total organic carbon | 06009 | |

Please note that the radionuclides should be reported in becquerels (Bq) and not the older pCi units which have been superseded. I discussed this with the manager of the Canadian

.../2



Canada

In order to conserve energy and resources, this paper contains post-consumer fibre.

À des fins de conservation de l'énergie et des ressources, ce papier contient des fibres recyclées.

National Uranium Tailings data base and she agrees that the approved metric units should be used. Consequently the units associated with the above radionuclides are Bq/L or Bq/g, respectively.

These method codes are currently being entered into the NAQUADAT Dictionary with your descriptions. If you have any questions, please feel free to contact me at (819)997-3422.

Yours truly,

S.H. Whitlow
Head, Data Systems Section

## APPENDIX C

FINAL PROGRESS REPORT, BIOLOGICAL COMPONENT BY DR. P.I. TONES.

Pat Tones

# FINAL PROGRESS REPORT
# BIOLOGICAL COMPONENT
# MICROCOMPUTER SYSTEM FOR USE WITH CANUT DATA BASE

## 1 PROGRESS

The parts of the contract relating to biological data were completed. In summary, the draft form of the biological data tables were refined to produce the final form used for data entry. All the proprietory data included in this contract was transferred from maps, original field books and laboratory records to the data entry forms. After the data were entered in the microcomputer, a biological technician verified a printout. In addition, a dictionary defining the data elements and code numbers was prepared. Data elements that could be easily analyzed by statistical packages were also selected.

### 1.1 Final Form of Biological Tables

Data tables had been designed to conform with the hierarchical form of the CANUT data base (Figure 1 in the CANUT Data Standards Manual) for water quality as a relatively easy test case (SRC January Progress Report) and then for biological data (SRC February Progress Report). The draft biological tables have now been revised (Appendix C-A). The data elements included in each table are summarized in Table 1.1. The biological tables 5 to 11 contain the CANUT data elements plus additional data elements selected by SRC to provide: additional information about the sample (e.g. fish age, length, weight and sex), a numeric code which would be easier to manipulate by a conventional statistical package (e.g. study identifier, species code, etc.), a new format better suited to biological data (e.g. genus and species nomenclature), and additional

Table 1.1 Final List of Biological Tables and their Contents.

| Table Number | Data Element | CANUT Number | SRC Number |
|---|---|---|---|
| 5 | Tailings Site Identifier | 1 | -- |
| 5 | Mine Name | 2 | -- |
| 5 | Owner | 3 | -- |
| 5 | Province | 4 | -- |
| 5 | NTS Map Sheet | 5 | -- |
| 5 | Basin Code | 6 | -- |
| 6 | Tailings Site Identifier | 1 | -- |
| 6 | Study Identifier | -- | *01 |
| 6 | Study Title | 21 | -- |
| 6 | Source Code | -- | *02 |
| 6 | Main Sponsor | 22 | -- |
| 6 | Publication Date | 23 | -- |
| 6 | Study Description | 24 | -- |
| 10 | Tailing Site Identifier | 1 | -- |
| 10 | Study Identifier | -- | *01 |
| 10 | Source Code | -- | *02 |
| 10 | Study Author's Name[1] | 601 | -- |
| 10 | Study Author's Given Name[1] | 602 | -- |
| 10 | Study Author's Affiliation[1] | 603 | -- |
| 11 | Tailings Site Identifier | 1 | -- |
| 11 | Study Identifier[1] | -- | *01 |
| 11 | Source Code | -- | *02 |
| 11 | Keyword[1] | 801 | -- |
| 7 | Tailings Site Identifier | 1 | -- |
| 7 | Study Identifier | -- | *01 |
| 7 | Sample Identifier[1] | 704 | -- |
| 7 | Group Name | -- | *13 |
| 7 | Species Name: Genus | -- | *14 |
| 7 | Species Name: Species | -- | *15 |
| 7 | Group Code | -- | *16 |
| 7 | Species Code | -- | *17 |
| 7 | Age | -- | *18 |
| 7 | Age Unit | -- | *19 |
| 7 | Weight | -- | *20 |
| 7 | Weight Unit | -- | *21 |
| 7 | Fork Length | -- | *22 |
| 7 | Precision of Fork Length | -- | *07 |
| 7 | Fork Length Unit | -- | *23 |
| 7 | Sex | -- | *24 |
| 7 | Spawning Condition | -- | *25 |

Table 1.1 (Continued)

| Table Number | Data Element | CANUT Number | SRC Number |
|---|---|---|---|
| 8 | Tailings Site Identifier | 1 | -- |
| 8 | Sample Identifier | 704 | -- |
| 8 | Study Identifier | -- | *01 |
| 8 | Sample Type (SRC) | -- | *04 |
| 8 | Laboratory Identifier | 1002 | -- |
| 8 | Measurement Type | 1001 | -- |
| 8 | Sample Field Treatment (SRC) | -- | *05 |
| 8 | Sample Treatment | 713 | -- |
| 8 | Material | 1101 | -- |
| 8 | Less Than | -- | *06 |
| 8 | Value | 1102 | -- |
| 8 | Precision | -- | *07 |
| 8 | Units | 1103 | -- |
| 8 | Weight Type | -- | *08 |
| 8 | Quality | 1104 | -- |
| 9 | Tailings Site Identifier | 1 | -- |
| 9 | Study Identifier | -- | *01 |
| 9 | Reference Identifier | 701 | -- |
| 9 | Location Code | -- | *09 |
| 9 | Sample Date | 702 | -- |
| 9 | Sample Time | 703 | -- |
| 9 | Sample Type | 705 | -- |
| 9 | Sample ID[1] | 704 | -- |
| 9 | Sample Description | 706 | -- |
| 9 | Location Accuracy | 707 | -- |
| 9 | Easting | 708 | -- |
| 9 | Northing | 709 | -- |
| 9 | Zone | 710 | -- |
| 9 | Surface Elevation | 711 | -- |
| 9 | Precision | -- | *07 |
| 9 | Sample Depth | 712 | -- |
| 9 | Precision | -- | *07 |
| 9 | Sample Method | -- | *10 |
| 9 | Sediment Type | -- | *11 |
| 9 | Flow | -- | *12 |

[1]This data element is repeated.

information on sampling (e.g. substrate type for benthic fauna), units (e.g. dry weight, ash weight, etc.) and values (e.g. significant digits).

Table 5, Tailings Site, consists of CANUT data elements 1 to 6 describing the tailings site; it is the same as Table 1 used for water quality (SRC January Progress Report) since there are no biological components.

Table 6 consists of CANUT data elements 1, 21, 22, 23 and 24 plus a numeric study identifier and a source code added by SRC. Each study is assigned a unique number by SRC to identify it during statistical analysis. We understood that CANUT would assign a source code; therefore a data element was created to accommodate it when it was supplied. The original Table 6 (SRC February Progress Report) has been broken down into final Tables 6, 10 and 11. Table 10 includes a listing of the study authors and their affiliation (CANUT elements 601, 602 and 603) plus three data elements to tie it into Table 6. Table 11 includes a listing of the keywords (CANUT element 801) plus tie-in information.

Table 7, Biological Classification, is tied into the other tables by CANUT data elements 1 and 704 but it contains data elements selected by SRC. Up to six sample identifiers can be coded because many samples (e.g. skin, flesh, bone, etc.) can be taken from one organism. A species name (e.g. Catostomus commersoni) is preferred by biologists since it prevents confusion (see also SRC November Progress Report) but a group name is also necessary for the convenience of non-biologists and for samples such as plankton or benthos where identification to the species level may not be possible. Numeric codes for groups and species make statistical analysis easier. Numbers have been assigned for all groups

and species included in the proprietory data but up to 999 species and 9 groups could be assigned numbers in the future. As pointed out in the November Progress Report, CANUT data element 705, Sample Type, will not allow us to enter the SRC data because there is not enough room to add the species and it is not satisfactory for aquatic organisms generally. For this reason, SRC data elements 13-17 have been developed for Table 7. Supporting biological information such as age, length, weight, condition and sex may affect radionuclide uptake and, therefore, have been recorded. The units for fish age, weight and fork length could not be entered because unit codes have not been assigned in the CANUT Data Standards Manual for years, grams, centimetres (except for altitude, depth or location).

Table 8, Measurement Results, consists of CANUT data elements 1, 704, 1001, 1002, 713, 1101, 1102, 1103 plus data elements added by SRC. The latter include the study identifier, the sample type (e.g. fish skin, total plankton, etc.), the field treatment of the sample (e.g. gutted/frozen, washed/frozen, etc.), a provision for 'less than' signs, the number of significant digits after the decimal, and weight type (e.g. fresh, ash, dry, wet). Numeric codes have been assigned to many of these data elements and a dictionary of code numbers is appended. The SRC element 'sample type' is part of our response to problems identified with the CANUT data element 705. Similarly, field treatments were entered in element *05 rather than 713 since field information would be lost. If the CANUT Data Administrator chooses to make changes in the codes for 713 or ignore some of the field information, the data could be transferred to 713 which has been left blank. Nothing has been entered in 1104

(Data Quality); this element was discussed in the November Progress Report.

Table 9, Sample Description and Location, consists of CANUT data elements 701 to 712 inclusive plus the tailings site identifier. The SRC has added the following elements: a study identifier, location code, sampling method, sediment type, flow and precision. The two data elements entitled precision state the number of significant digits after the decimal for surface elevation and sample depth. In the location code, a number has been assigned to each sampling location within a study. Thus, the study identifier and location code, when taken together, become a unique number. The sampling method is given because different methods have different efficiencies and may pre-select organisms by size or habitat. Sediment type and flow are codes based on qualitative descriptions. Sediment type is a two-digit code describing organic content and texture. In lakes, flow separates zones which experience wave action (e.g. littoral zone) from those that do not; in streams, it separates riffles from pools (backwaters). The sediment type and the flow elements describe factors which may affect radionuclide uptake or exchange rates and community composition in benthic invertebrates, periphyton and aquatic plants.

All the tables are linked to each other by common identifiers. The Tailings Site Identifier is entered on every table. The Study Identifier is introduced in Table 6, The Study, Authors and Keywords. The Study Identifier is then entered on every table that follows. The Sample Identifier is introduced in Table 7, Biological Information, and is entered in all following tables pertaining to an individual sample. That is, every table that contains information about a particular sample contains

that sample number. All tables containing information about a particular study contain that study number. Linkage is, therefore, obtained by using these three identifiers. We decided, at an early date, not to use the organism as the linking element because many samples can come from one organism (e.g. large fish) and, conversely, one sample can consist of many organisms (e.g. plankton).

All CANUT data elements pertaining to biological studies have been included in these tables with the exception of 705 which we found impractical for biological material. Where we had difficulty entering data into an element we left it blank and, usually, provided the data under another SRC element which overcame the problem. We hope that the Data Administrator will consider the problems identified in this report and earlier progress reports, and amend some of the data elements and codes.

The tables also contain additional supporting information which is unique to biological material and, sometimes, to groups of organisms. These data elements may be too detailed or too biologically-oriented for inclusion in the CANUT data base. It is our intention that the file added to the CANUT data base will be an edited version of the complete file in the microcomputer.

## 1.2 Coding of Proprietory Data

The proprietory data assembled for this contract was provided by Dr. Stella Swanson of SRC. It included 336 samples for which 1001 values were recorded. The samples consisted of flesh, bone and skin from lake trout, lake whitefish and white suckers from Beaverlodge Lake and lake trout, round whitefish and longnose suckers from Fulton Lake, a control,

plus uneviscerated whole forage fish from Tailings Creek, Ace Creek and Beaverlodge Lake. Both creeks enter into Beaverlodge Lake. The forage fish included trout-perch, cisco, spottail shiner, nine-spine stickleback, white sucker, longnose sucker and lake chub. The values are for radium -226, lead-210 and uranium.

A total of 527 tables were filled out by a biological technician; the number of each type of table needed is shown in Table 1.2. These tables then became the data entry forms. The radionuclide data and supporting information about fish biology, locations, sampling methods and analytical methods were obtained from original field books, original laboratory record books, field and laboratory staff and NTS maps. Both the cross referencing among original sources and the encoding proved to be time consuming.

By filling in the tables we learned more about the problems. For example, a number of sample identifiers may apply to one large fish since many different tissues may be analyzed. But one sample identifier may also apply to many fish. A number of forage fish may be required to provide enough ash for one sample. Biological information such as age, weight, length, etc. is gathered for each fish.* Fortunately, the use of tables as a data entry form was flexible enough to handle this case. We also found that the sampling sites were located on more than one NTS sheet. Therefore, changes at the highest level of the CANUT hierarchy (Tailings site - NTS Map Sheet (CANUT element 5)) could occur. For this reason, a new set of tables pertaining to the tailings site and the study (Tables 5, 6, 10 and 11) were prepared each time the sampling site changed.

*That is, a number of Table 7's must be filled out for one Table 8.

Table 1.2 Number of Data Entry Tables Filled with Proprietory Data.

| Table Number | Title | Number of Tables Filled In |
|---|---|---|
| 5 | Tailings Site | 12 |
| 6 | Study | 12 |
| 7 | Biological Information | 66 |
| 8 | Measurement Results | 339 |
| 9 | Sample Description and Location | 74 |
| 10 | Study Authors | 12 |
| 11 | Study Keywords | 12 |

## 1.3 Verification

After the data on the entry forms (Tables 5 to 11) had been entered into the microcomputer, a biological technician verified the first printout against the entry forms and her own (extensive) knowledge of the data. Corrections were reported to John Dyck.

The types of errors that were detected can be grouped into: incorrect headings (e.g. inconsistencies in the numbers assigned to data elements, incorrect word usage when a computer specialist provides a heading relating to a different discipline), incorrect alignment of columns (e.g. data was not centered under column heading, inconsistencies in left or right justified columns), missing or added lines (e.g. a data entry form wasn't read, a line exists for which there is no entry form), segments of columns missing (e.g. repetitive data not written on every entry form, difficult or unknown data left until later, repetitive data not entered - this error often causes the rest of the data on the line to be out of place), typing/spelling errors (e.g. errors in species names are very common, incorrect placement of the decimal, incorrect numbers, missing numbers) and errors associated with 'O' (e.g. the number 'o' entered when the data is missing). Although many of these errors are typical and could be detected by the data processors, some would probably not be detected by anyone other than the author.

The verification that has been done is only at the first level. A second verification of the data is recommended. If simple statistics were performed on the data, irregularities in minimums, maximums, standard deviations, etc. could be used to detect more errors.

## 1.4 Data Dictionary

The SRC has prepared a data dictionary for all of the data elements in Tables 5 to 11. Since these tables contain elements established by SRC as well as CANUT, we wanted to prevent any confusion which might occur. The SRC Data Dictionary (i) states the originator of the data element, (ii) defines SRC data elements, (iii) gives the numeric codes developed by SRC and (iv) states the format. It is attached as Appendix C-B.

## 1.5 Additional Work

Because of the variety of statistical packages available (such as SAS, SPSS, SPSS-X), we decided to select a format for the data that could be easily analyzed by a biologist at a computing center where the facilities might be somewhat limited. We then decided to reduce the hierarchal system of alpha-numeric tables that we have prepared to suit the System 2000 data base system to one numeric "flat" table consisting only of rows and columns. We decided that this could be done by severely editing the seven existing tables and combining them into one. Anticipating this project, we added numeric identifiers to the tables to extract or code the essential information from the descriptive data elements. For example, most of the descriptive information about the study is contained in the coding for the SRC Study Identifier and the sample location is defined by the study identifier-sample location combination. Table 1.3 contains our draft of a reduced table for statistical analysis. At my request, the other members of our team demonstrated that the dBASE II files could be combined fairly easily and data could be transmitted to the University of Saskatchewan computing center. This additional work

was initiated by SRC. It is not part of the contract; we are reporting it for your information.

Table 1.3 Data Elements to be Included in SAS/SPSS File.

| CANUT Number | SRC Number | Data Element |
|---|---|---|
| -- | *01 | Study Identifier |
| -- | *09 | Location Code |
| 702 | -- | Sample Date |
| 712 | -- | Sample Depth |
| -- | *10 | Sample Method |
| -- | *11 | Sediment Type[1] |
| -- | *12 | Flow[1] |
| -- | *04 | SRC Sample Type |
| -- | *05 | Sample Treatment (Field) |
| 1001 | -- | Measurement Type |
| 1002 | -- | Laboratory Identifier |
| 1102 | -- | Value |
| 1103 | -- | Units |
| -- | *08 | Weight Type |
| -- | *16, *17 | Group and Species Code |
| -- | *18 | Age[2] |
| -- | *19 | Age Units |
| -- | *20 | Weight[2] |
| -- | *21 | Weight Units |
| -- | *22 | Fork Length[2] |
| -- | *23 | Fork Length Units |
| -- | *24 | Sex |
| -- | *25 | Spawning Condition |

[1]Not necessary for fish.

[2]Usually applies to fish.

APPENDIX C-A

Saskatchewan Research Council

Data Entry Forms

TABLE05. Tailings Site.

| 1. TAILINGS SITE IDENTIFIER | 2. MINE NAME | 3. OWNER | 4. PROV. | 5. NTS MAP SHEET | 6. BASIN CODE |
|---|---|---|---|---|---|
| | | | | | |

TABLE06, TABLE10 and TABLE11. Study, Authors and Keywords.

1. TAILINGS SITE IDENTIFIER

*01. STUDY IDENT-IFIER

21. STUDY TITLE

*02 SOURCE CODE

22. MAIN SPONSOR

23. PUBLICATION DATE

24. STUDY DESCRIPTION (or) 801. KEY WORDS

Data Group = "600. STUDY AUTHORS" (See Figure 1, CANUT database schematic).

601. LAST NAME

602. GIVEN NAME

603. AFFILIATION



Legend

* Fields added to record to augment CANUT Specifications.

TABLE06, TABLE10 and TABLE11. Study, Authors and Keywords.

1. TAILINGS SITE IDENTIFIER

*01. STUDY IDENT-IFIER

*01 STUDY IDENTIFIER

21. STUDY TITLE

*02 SOURCE CODE

22. MAIN SPONSOR

23. PUBLICATION DATE

24. STUDY DESCRIPTION (or) 801. KEY WORDS

Data Group = "600. STUDY AUTHORS" (See Figure 1, CANUT database schematic).

601. LAST NAME

602. GIVEN NAME

603. AFFILIATION



Legend

* Fields added to record to augment CANUT Specifications.

TABLE07. Biological Information

1. TAILINGS SITE IDENTIFIER

*01. STUDY IDENTIFIER

704. SAMPLE IDENTIFIER

1st
2nd
3rd
4th
5th
6th

*13. GROUP NAME

GROUP & SPECIES CODE

*16. GROUP

*17. SPECIES

SPECIES NAME

*14. GENUS

*15. SPECIES

*18. AGE

*19. AGE UNIT

*20 WEIGHT

*21. WEIGHT UNIT

*22. FORK LENGTH

*07. PRECISION

*23. FORKLENGTH UNIT

*24 SEX

*25 SPAWNING CONDITION

Legend

* Fields added to record to augment CANUT specifications.

TABLE08. Measurement results.

| 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | *01 STUDY IDENTIFIER |
|---|---|---|
| | | |

| 04 RC AMPLE YPE | 1002. LAB. IDENT. | 1001. MEASURE-MENT TYPE | 713. SAMPLE TREAT-MENT | 1101. MATERIAL | *06' LESS THAN | 1102. VALUE | *07. PRECISION 1103. UNITS | *08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

Legend
* Fields added to record to augment CANUT specifications.

TABLE09. Sample Description and Location.

| TAILINGS SITE ENTIFIER | *01. STUDY IDENTIFIER | 701. SAMPLE REFERENCE IDENTIFIER | *09 LOCATION CODE | 702. SAMPLE DATE | 703. SAMPLING TIME | 705. SAMPLE TYPE | 704. SAMPLE IDENTIFIER |
|---|---|---|---|---|---|---|---|
| | | | | | | | 1st<br>2nd<br>3rd<br>4th<br>5th<br>6th |

706. SAMPLE DESCRIPTION

| 707. LOCATION ACCURACY | 708. EASTING | 709. NORTHING | 710. zone |
|---|---|---|---|
| | | | |

| 711. SURFACE ELEVATION | *07. P | 712. SAMPLE DEPTH | *07. P | *10. SAMPLE METHOD (Field) | *11. SEDIMENT TYPE | *12 FLOW |
|---|---|---|---|---|---|---|
| | | | | | | |

Legend
* Fields added to record to augment CANUT specifications.
P = Precision (for associated data element).

APPENDIX C-B

Saskatchewan Research Council

Data Dictionary

## SRC DATA DICTIONARY

DATA ELEMENT: Tailings Site Identifier (1)

DESCRIPTION: the descriptive name for the particular tailing containment facility from which the sample was taken

SRC has expanded on NUTP's definition (above) to include natural water bodies lying within the zone potentially influenced by the tailings or mine discharges

FORMAT: 12 spaces alphanumeric

SOURCE: NUTP, slightly modified interpretation

DATA ELEMENT: Mine Name (2)

DESCRIPTION: the name of the mine producing the tailings

values for mine name supplied in NUTP's data standards manual

FORMAT: 10 spaces
alphabetic - must match master list in NUTP's data standards manual

SOURCE: NUTP

DATA ELEMENT: Owner (3)

DESCRIPTION: the company which owns the mine

FORMAT: 13 spaces
alphabetic - list of owners given in NUTP's data standards manual

SOURCE: NUTP

DATA ELEMENT: Province (4)

DESCRIPTION: the province or territory the mine site is located in

FORMAT: 2 spaces
alphabetic - must match master list in NUTP's data standards manual

SOURCE: NUTP

DATA ELEMENT: NTS Map Sheet (5)

DESCRIPTION: identification of the National Topographic System map sheet that the tailings site is located on

FORMAT: 6 spaces
alphanumeric

SOURCE: NUTP

DATA ELEMENT: Basin Code (6)

DESCRIPTION: the Water Survey of Canada basin and subbasin codes which identify the drainage basins in Canada

codes are listed in NUTP's data standards manual

FORMAT: 4 spaces
alphanumeric

SOURCE: NUTP

DATA ELEMENT: Study Identifier (*01)

DESCRIPTION: every study entered into the computer file will be assigned a unique number. These numbers will be assigned in the order that the study is entered into the data base.

the study identifier is defined by the information in Table 6 (i.e. study title, main sponsor, publication date, study description, and Table 11 (study authors))

a printout request for all of the Table 6's will provide a listing of the study identifiers and their descriptions

FORMAT: 3 spaces
numeric

SOURCE: SRC

DATA ELEMENT: Study Title (21)

DESCRIPTION: contains the title or name of the study

FORMAT: 240 spaces
alphanumeric

SOURCE: NUTP

DATA ELEMENT: Source Code (*02)

DESCRIPTION: a unique number assigned by NUTP identifying the source of the data

FORMAT: 6 spaces
numeric

SOURCE: SRC (after being informed that NUTP is providing a source code)

DATA ELEMENT: Main Sponsor (22)

DESCRIPTION: contains the name or other identification of the main sponsor of the study

FORMAT: 25 spaces
alphanumeric

SOURCE: NUTP

DATA ELEMENT: Publication Date (23)

DESCRIPTION: the year in which the study was published or released

FORMAT: 4 spaces
numeric

SOURCE: NUTP

DATA ELEMENT: Study Description (24)

DESCRIPTION: a narrative description of the study including methodology, purpose, types of samples and types of analysis

FORMAT: 35 spaces
alphanumeric

SOURCE: NUTP

DATA ELEMENT: Study Author Last Name (601)

DESCRIPTION: the last name of each author of the study

FORMAT: 20 spaces
alphabetic

SOURCE: NUTP

DATA ELEMENT: Study Author Given Name (602)

DESCRIPTION: the given name or initials of the study author

FORMAT: 20 spaces
alphabetic

SOURCE: NUTP

DATA ELEMENT: Study Author's Affiliation (603)

DESCRIPTION: the name of the organization that the author was affiliated with at the time of the study

FORMAT: 20 spaces
alphabetic

SOURCE: NUTP

DATA ELEMENT: Reference Identifier (701)

DESCRIPTION: the original "field" or "laboratory" identifier for the particular sampling station which distinguishes it from others. This is the identifier applied by the source of the data

FORMAT: 12 spaces
alphanumeric

SOURCE: NUTP

DATA ELEMENT: Location Code (*09)

DESCRIPTION: identifies the location of the sampling station where the organism was collected

every sampling site will be assigned a number that is unique within that study based on information in Table 9, particularly the reference identifier. These numbers will be assigned consecutively as the stations are entered into the data base. The combination of study identifier and location code will provide a numeric station location code that is unique in the data base.

a printout request for all of the "Table 9's" will provide a listing of the location codes and their descriptions

FORMAT: 3 spaces
numeric

SOURCE: SRC

DATA ELEMENT: Sample Date (702)

DESCRIPTION: the date on which the sample was taken

FORMAT: 6 spaces
numeric (month, day, year)

SOURCE: NUTP

DATA ELEMENT: Sampling Time (703)

DESCRIPTION: the time of the day when the sample was taken

FORMAT: 6 spaces
numeric (hours, minutes, seconds)

SOURCE: NUTP

DATA ELEMENT: Sample Type (705)

DESCRIPTION: a code indicating the type of sample material

the codes in this category do not suit the needs of SRC's biological data. As a result, SRC has created a new dictionary of sample type codes to accommodate their own requirements (see SRC Sample Type *04)

FORMAT: 4 spaces
numeric

SOURCE: NUTP

DATA ELEMENT: Sample Identifier (704)

DESCRIPTION: a unique field or laboratory sample identifier

in the case of SRC data, it is usually the "group number" and the "sample number", which are assigned by the SRC laboratory. In the event that there are no group and sample numbers supplied by the SRC laboratory, alternative identifiers used within the study will be used.

note that "sample number" is the smallest part of the organism for which separate results are available (example, fish skin). (For tiny organisms it may be a composite sample.)

FORMAT: 7 spaces
numeric

SOURCE: NUTP with comments on SRC use of alloted spaces

DATA ELEMENT: Sample Description (706)

DESCRIPTION: a brief description of the sample material

FORMAT: 35 spaces
alphanumeric

SOURCE: NUTP

DATA ELEMENT: Location Accuracy (707)

DESCRIPTION: the accuracy to which the sample location is known (measured in metres)

FORMAT: 6 spaces; precision to 1 decimal place
numeric

SOURCE: NUTP

DATA ELEMENT: Easting (708)

DESCRIPTION: the UTM easting coordinate of the sample location (measured in metres)

FORMAT: 9 spaces; precision to 1 decimal place
numeric

SOURCE: NUTP

DATA ELEMENT: Northing (709)

DESCRIPTION: the UTM northing coordinate of the sample location (measured in metres)

FORMAT: 10 spaces; precision to 1 decimal place
numeric

SOURCE: NUTP

DATA ELEMENT: Zone (710)

DESCRIPTION: the UTM zone coordinate of the sample location

FORMAT: 2 spaces
numeric

SOURCE: NUTP

DATA ELEMENT: Surface Elevation (711)

DESCRIPTION: height above mean sea level of the station at which the sample was taken (metres)

FORMAT: 8 spaces; precision to 2 decimal places
numeric

SOURCE: NUTP

DATA ELEMENT: Precision (*07)

DESCRIPTION: the number of significant digits to the right of the decimal. Its purpose is to facilitate the printing of tables correctly (to prevent trailing zeros)

FORMAT: 1 space
numeric

SOURCE: SRC

DATA ELEMENT: Sample Depth (712)

DESCRIPTION: the depth of the sample from the surface (measured in metres)

FORMAT: 8 spaces; precision to 2 decimal places
numeric

SOURCE: NUTP

DATA ELEMENT: Sample Method (Field) (*10)

DESCRIPTION: identifies the method used to collect organisms in the field. Each sample method has a unique number assigned to it. See Table B.1 at the end of the dictionary for a listing.

FORMAT: 2 spaces
numeric

SOURCE: SRC

DATA ELEMENT: Sediment Type (*11)

DESCRIPTION: identifies the combination of texture and organic content in the sediment sample

each sediment type is made up of two unique numbers; the right hand number defines the texture, and the left hand number defines organic content. See Table B.2 at the end of the dictionary for a listing.

FORMAT: 2 spaces (organic content, texture)
numeric

SOURCE: SRC

DATA ELEMENT: Flow (*12)

DESCRIPTION: a number assigned to habitat types, which are defined by the amount of water movement. See Table B.3 at the end of the dictionary for a listing.

FORMAT: 1 space
numeric

SOURCE: SRC

DATA ELEMENT: SRC Sample Type (*04)

DESCRIPTION: a unique number assigned to each type of sample material (i.e. each tissue, organ, etc.). See Table B.4 at the end of the dictionary for a listing.

FORMAT: 3 spaces
numeric

SOURCE: SRC

DATA ELEMENT: Lab Identifier (1002)

DESCRIPTION: a code for the laboratory or agent which performed the analysis

FORMAT: 3 spaces
alphanumeric

SOURCE: NUTP

DATA ELEMENT: Measurement Type (1001)

DESCRIPTION: a code indicating the type of measurement, and where the measurement was made

based on NAQUADAT master list

FORMAT: 6 spaces
alphanumeric

SOURCE: NUTP

DATA ELEMENT: Sample Treatment (Field) (*05)

DESCRIPTION: a unique number assigned to define the treatment of the sample in the field. See Table B.5 at the end of the dictionary for a listing.

FORMAT: 3 spaces
numeric

SOURCE: SRC

DATA ELEMENT: Material (1101)

DESCRIPTION: the material or condition being tested for

FORMAT: 20 spaces
alphanumeric

SOURCE: NUTP

DATA ELEMENT: "Less Than" (*06)

DESCRIPTION: a symbol indicating "less than" or "less than or equal to"

FORMAT: 2 spaces
alphabetic

SOURCE: SRC

DATA ELEMENT: Value (1102)

DESCRIPTION: the value of the measurement in the original units used by the originator of the data base

FORMAT: 19 spaces
numeric

SOURCE: NUTP

DATA ELEMENT: Units (1103)

DESCRIPTION: a code for the unit of the sample measurement used by the originator of the data

the NUTP list of units is not adequate for biological data. For example, SRC is temporarily applying units from NUTP's sediment category to its biological data, because NUTP's biological category is incomplete (note: under the biological category SRC needs: age in years, weight in grams, length in cm, µg/g, mg/g)

FORMAT: 2 spaces
numeric

SOURCE: NUTP

DATA ELEMENT: Weight Type (*08)

DESCRIPTION: a unique number assigned to each weight type. See Table B.6 at the end of the dictionary for a listing.

FORMAT: 1 space
numeric

SOURCE: SRC

DATA ELEMENT: Quality (1104)

DESCRIPTION: a value indicating the quality of the reported value. The value will vary with laboratory, analytical method and sample type (note: SRC is maintaining this definition, but will not be entering information in this category)

FORMAT: 4 spaces
numeric

SOURCE: NUTP

DATA ELEMENT: Group Name (*13)

DESCRIPTION: the common name of the group of organisms to which the sample organism belongs (example: fish, aquatic insects, etc.)

FORMAT: 15 spaces
alphabetic

SOURCE: SRC

DATA ELEMENT: Species Name (*14, *15)

DESCRIPTION: the scientific name for the sample including genus and species

FORMAT: genus - 15 spaces
species - 15 spaces
alphabetic

SOURCE: SRC

DATA ELEMENT: Group and Species Code (*16, *17)

DESCRIPTION: a code number which identifies the sample according to the group name and the species name

the farthest left hand number defines the group name and the remaining three numbers define the species name. Refer to Table B.7 at the end of the dictionary for a listing

FORMAT: 4 spaces
numeric

SOURCE: SRC

DATA ELEMENT: Weight (*20)

DESCRIPTION: defines the weight of the sample. This data element applies mainly to fish.

FORMAT: 4 spaces
numeric

SOURCE: SRC

DATA ELEMENT: Weight Unit (*21)

DESCRIPTION: a code for the unit of sample measurement. Data entered is in grams

FORMAT: 2 spaces
numeric

SOURCE: SRC

DATA ELEMENT: Fork Length (*22)

DESCRIPTION: defines the fork length of the sample. This data element applies to fish.

FORMAT: 5 spaces; precision to 1 decimal place
numeric

SOURCE: SRC

DATA ELEMENT: Fork Length Unit (*23)

DESCRIPTION: a code for the unit of sample measurement. Data is in centimetres

FORMAT: 2 spaces
numeric

SOURCE: SRC

DATA ELEMENT: Sex (*24)

DESCRIPTION: a code which defines the sex of the sample. Refer to Table B.8 at the end of the dictionary for a listing.

FORMAT: 1 space
numeric

SOURCE: SRC

DATA ELEMENT: Spawning Condition (*25)

DESCRIPTION: a code which defines whether the sample is in spawning condition or not. Refer to Table B.9 at the end of the dictionary for a listing.

FORMAT: 1 space
numeric

SOURCE: SRC

DATA ELEMENT: Age (*18)

DESCRIPTION: defines the age of the sample. This data element applies primarily to fish

FORMAT: 3 spaces
numeric

SOURCE: SRC

DATA ELEMENT: Age Unit (*19)

DESCRIPTION: a code for the unit of sample measurement. Data entered in years

FORMAT: 2 spaces
numeric

SOURCE: SRC

DATA ELEMENT: Key Word (801)

DESCRIPTION: key words in the study - both descriptors and content

FORMAT: 20 spaces
alphanumeric

SOURCE: NUTP

Table B.1 SRC Sample Method (Field) (*10)

| Sampling Method | Assigned Code Number |
|---|---|
| Beach seine | 01 |
| Fish trap | 02 |
| Dip net | 03 |
| Ekman dredge | 04 |
| Artificial substrate | 05 |
| Surber sampler | 06 |
| Rock scrape | 07 |
| Kemmerer sampler | 08 |
| Total vertical haul (plankton net) | 09 |
| Gill net | 10 |
| ↓ | ↓ |

Table B.2 SRC Sediment Type*.

| Organic Content | Assigned Code Number | Texture | Assigned Code Number |
|---|---|---|---|
| mineral | 1 | rock outcrops and boulders | 1 |
| mixed | 2 | gravel and small stones | 2 |
| organic | 3 | sand | 3 |
| | ↓ | till | 4 |
| | (9) | clay | 5 |
| | | | ↓ |
| | | | (9) |

*The data element for sediment type consists of two parts: organic content (left) and texture (right) e.g. organic till would be 34.

Table B.3 SRC Flow.

| Habitat Type | Assigned Code Number |
|---|---|
| Stream - Riffle | 1 |
| Stream - Pools (Backwater) | 2 |
| Lake - Exposed beach | 3 |
| | ↓ |
| | (9) |

Table B.4 SRC Sample Type Codes.

| Organism | Sample Type | Assigned Code Number |
|---|---|---|
| Fish | skin | 101 |
| | bone | 102 |
| | flesh | 103 |
| | skin and flesh | 104 |
| | bone and flesh | 105 |
| | whole gutted | 106 |
| | cross section | 107 |
| | composite of several individuals/gutted | 108 |
| | gonads | 109 |
| | kidney | 110 |
| | liver | 111 |
| | whole/ungutted | 112 |
| | composite of several individuals/skin | 113 |
| | composite of several individuals/bone | 114 |
| | composite of several individuals/flesh | 115 |
| | composite of several individuals/ungutted | 116 |
| | composite of several individuals/skin and flesh | 117 |
| | | ↓ |
| Aquatic Insects | composite of several individuals | 201 |
| | whole individual | 202 |
| | | ↓ |
| Aquatic Plants | whole individual | 301 |
| | above ground portions | 302 |
| | stems | 303 |
| | leaves | 304 |
| | roots | 305 |
| | seeds | 306 |
| | flowers | 307 |
| | stems and leaves | 308 |
| | | ↓ |
| Plankton | total | 401 |
| | zooplankton | 402 |
| | phytoplankton | 403 |
| | periphyton | 404 |
| | | ↓ |

Table B.5 Sample Treatment in the Field.

| Organism | Field Treatment | Assigned Code Number |
|---|---|---|
| Fish | ungutted/frozen | 100 |
| | gutted/frozen | 101 |
| | unwashed/frozen | 102 |
| | washed/frozen | 103 |
| | | ↓ |
| Aquatic Insects | unwashed/frozen | 200 |
| | washed/frozen | 201 |
| | starved in distilled water/frozen | 202 |
| | | ↓ |
| Aquatic Plants | frozen | 300 |
| | dried | 301 |
| | | ↓ |
| Plankton | frozen | 400 |
| | dried | 401 |
| | | ↓ |

Table B.6 Weight Type.

| Weight Type | Assigned Code Number |
|---|---|
| fresh | 1 |
| wet | 2 |
| dry | 3 |
| ash | 4 |
| | ↓ |

Table B.7 Group-Species Code.

| Common Name | Species | Genus | Assigned Code Number | |
|---|---|---|---|---|
| | | | Group | Species |
| FISH | | | 1 | 000 |
| Lake whitefish | Coregonus | clupeaformis | 1 | 001 |
| Northern pike | Esox | lucius | 1 | 002 |
| White sucker | Catostomus | commersoni | 1 | 003 |
| Longnose sucker | Catostomus | catostomus | 1 | 004 |
| Spottail shiner | Notropis | hudsonius | 1 | 005 |
| Lake chub | Hybopsis | plumbea | 1 | 006 |
| Round whitefish | Coregonus | cylindraceus | 1 | 007 |
| Lake trout | Salvelinus | namaycush | 1 | 008 |
| Shallowwater cisco | Coregonus | artedii | 1 | 009 |
| Burbot | Lota | lota | 1 | 010 |
| Lake chub | Corresuis | plumbeus | 1 | 011 |
| Spottail shiner | Notropis | hudsonius | 1 | 012 |
| Trout-perch | Percopsis | omiscomaycus | 1 | 013 |
| Ninespine stickleback | Pungitius | pungitius | 1 | 014 |
| | | | ↓ | ↓ |
| AQUATIC INSECTS | | | 2 | 000 |
| | | | ↓ | ↓ |

Table B.8 Sex of the Organism.

| Sex | Assigned Code Number |
|---|---|
| male | 1 |
| female | 2 |

Table B.9 Presence of Evidence that Organism is in Spawning Condition.

| Spawning Condition | Assigned Code Number |
|---|---|
| Yes | 1 |
| No | 2 |
| Reabsorbed | 3 |

## APPENDIX D

DATA ENTRY FORMS FOR TABLE01 TO TABLE04 INCLUSIVE.

TABLE01

Data Group = "0. TAILINGS SITE" (See Figure 1, CANUT database schematic).

| 1. TAILINGS SITE IDENTIFIER | 2. MINE NAME | 3. OWNER | 4. PROV | 5. NTS MAP SHEET | 6.BASIN CODE |
|---|---|---|---|---|---|

TABLE02

Data Group = "20. STUDY" (See Figure 1, CANUT database schematic).

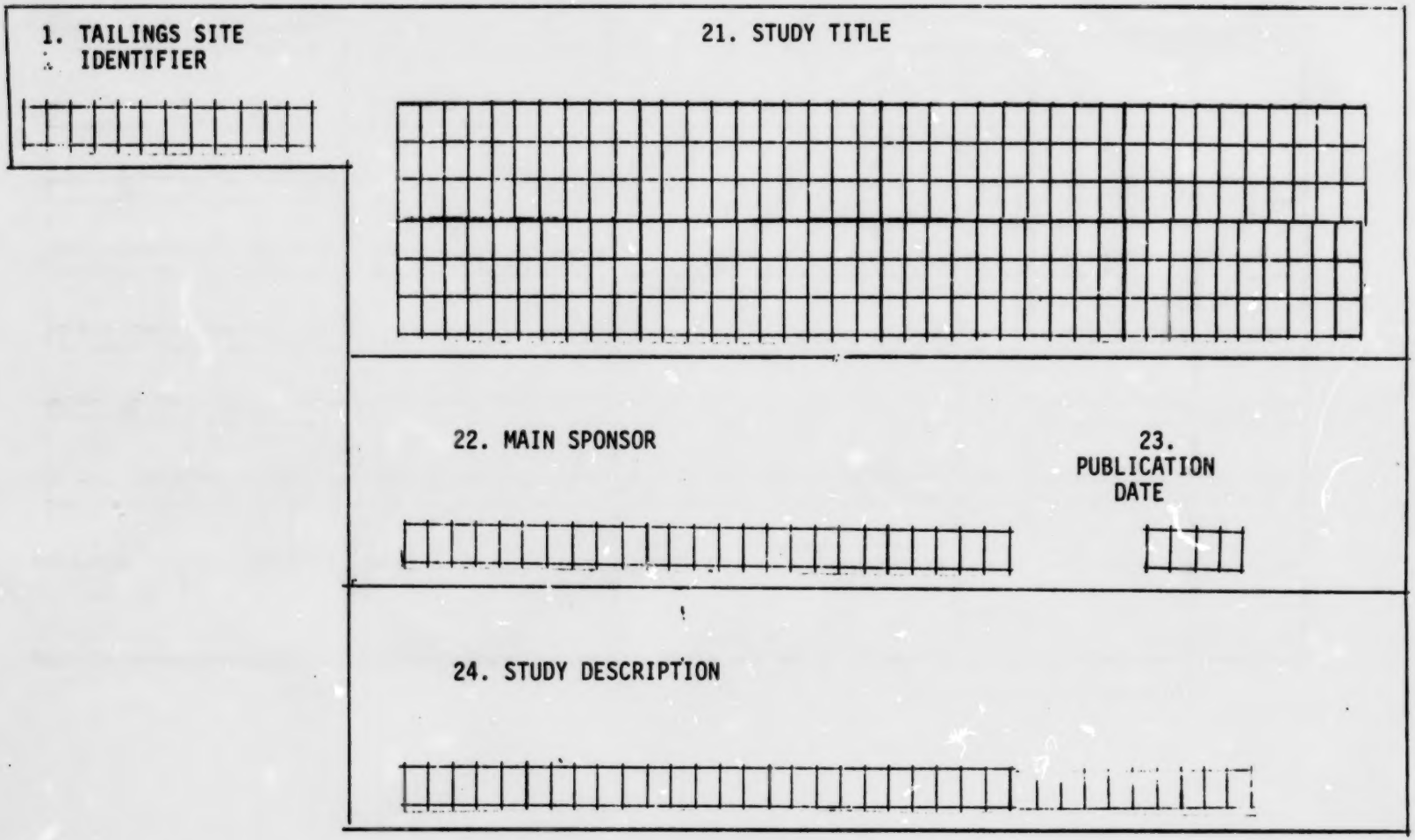
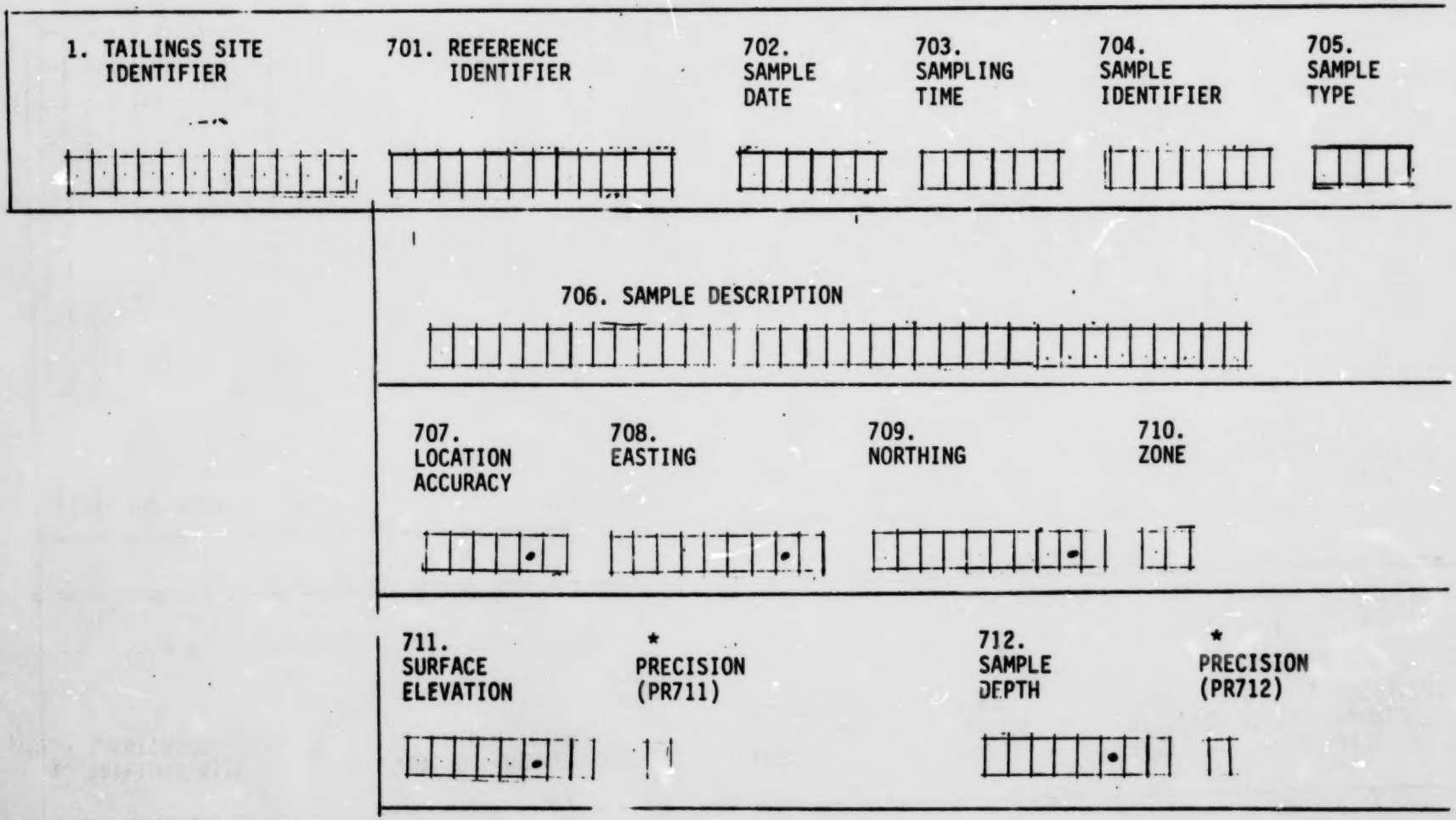


TABLE03

Data Group = "700. SAMPLE" (See Figure 1, CANUT database schematic).

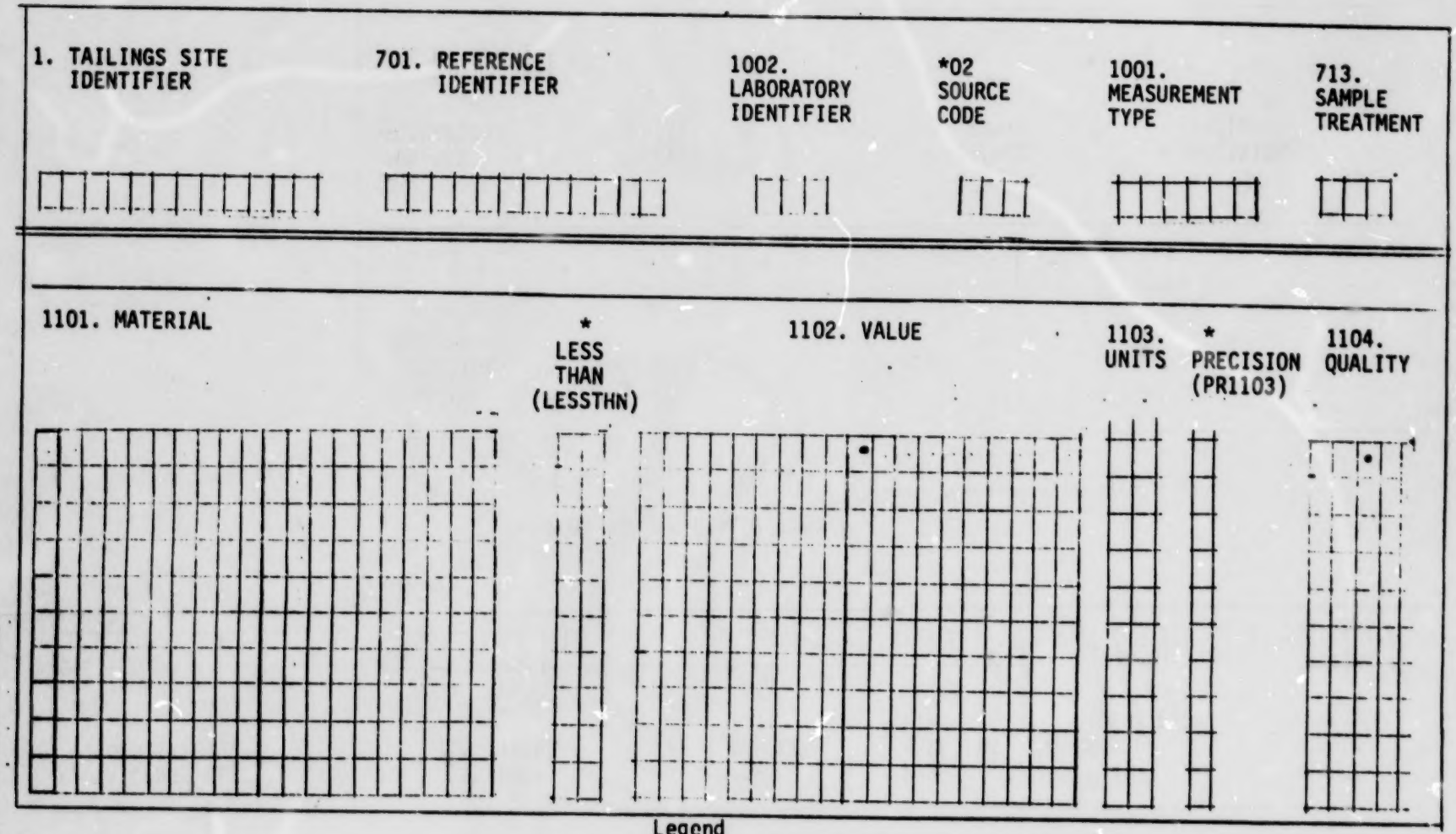



Legend

* Fields added to this record to augment CANUT specifications.

TABLE04

Data Groups = "1000. MEASUREMENT" and "1100. RESULTS" (See Figure1, CANUT database schematic).




Legend

*Fields added to record to augment CANUT specifications.

## APPENDIX E

## INDEX OF CANUT'S DATA ELEMENTS FOR EACH DATA ENTRY FORM.

```
QUIT
*** END RUN     dBASE II     ***


. DISPLAY STRUCTURE
STRUCTURE FOR FILE:  C:TABLE12 .DBF
NUMBER OF RECORDS:   00131
DATE OF LAST UPDATE: 05/22/84
PRIMARY USE DATABASE
FLD       NAME       TYPE WIDTH   DEC
001     TABLE        C    002
002     CAMUT:NO     C    004
003     ELEMENT      C    030
004     FORMAT       C    007
005     DFIELD:NO    C    003
006     DNAME        C    009
007     DTYPE        C    001
008     DWIDTH       C    003
009     DDEC         C    003
** TOTAL **             00063
.
```

```
LIST
00086  01 0001 TAILINGS SITE IDENTIFIER      X(12)    001 SITE:ID00 C 012
00087  01 0002 MINE NAME                     X(10)    002 MINE:NM02 C 010
00088  01 0003 OWNER                         X(13)    003 OWNER03   C 013
00089  01 0004 PROVINCE                      XX       004 PROV      C 002
00090  01 0005 NTS MAP SHEET                 X(6)     005 NTS05     C 006
00091  01 0006 BASIN CODE                    XXXX     006 BASIN06   C 004
00092  02 0001 TAILINGS SITE IDENTIFIER      X(12)    001 SITE:ID01 C 012
00093  02 0021 STUDY TITLE                   X(240)   002 TITLE21   C 120
00094  02 0022 MAIN SPONSOR                  X(25)    003 SPON22    C 025
00095  02 0023 PUBLICATION DATE              9999     004 PUBDATE23 N 004
00096  02 0024 STUDY DESCRIPTION             X(35)    005 DESC24    C 035
00097  03 0001 TAILINGS SITE IDENTIFIER      X(12)    001 TAIL:ST01 C 012
00098  03 0701 REFERENCE IDENTIFIER          X(12)    002 REF:ID701 C 012
00099  03 0702 SAMPLE DATE                   9(6)     003 SMPLDT702 C 006
00100  03 0703 SAMPLING TIME (HHMMSS)        9(6)     004 SMPLTM703 C 006
00101  03 0704 SAMPLE IDENTIFIER             X(7)     005 SMPLID704 C 007
00102  03 0705 SAMPLE TYPE                   9999     006 SMPLTP705 N 004
00103  03 0706 SAMPLE DESCRIPTION            X(35)    007 SMPLDS706 C 035
00104  03 0707 LOCATION ACCURACY             9999.9   008 LOCACC707 N 006 001
00105  03 0708 EASTING                       9(7).9   009 EAST708   N 009 001
00106  03 0709 NORTHING                      9(8).9   010 NORTH709  N 010 001
00107  03 0710 ZONE                          99       011 ZONE710   N 002
00108  03 0711 SURFACE ELEVATION             9(5).99  012 ELEV711   N 008 002
00109  03 **** PRECISION                              013 PR711     C 001
00110  03 0712 SAMPLE DEPTH                  9(5).99  014 DEPTH712  N 008 002
00111  03 **** PRECISION                              015 PR712     C 001
00112  04 0001 TAILINGS SITE IDENTIFIER      X(12)    001 SITE:ID   C 012
00113  04 0704 SAMPLE IDENTIFIER             X(7)     002 SMPLID704 C 007
00114  04 1002 LABORATORY IDENTIFIER         XXX      003 LABID     C 003
00115  04 *002 SOURCE CODE                            004 SRCCDE:02 C 003
00116  04 1001 MEASUREMENT TYPE              X(6)     005 TYP1001   C 006
00117  04 0713 SAMPLE TREATMENT              XXX      006 TREAT713  C 003
00118  04 1101 MATERIAL                      X(20)    007 MTRL1101  C 020
00119  04 **** LESS THAN                              008 LESSTHN   C 002
00120  04 1102 VALUE                         n/a      009 VALU1102  N 010 005
00121  04 1103 UNITS                         99       010 UNIT1103  N 002
00122  04 **** PRECISION                              011 PR1103    C 001
00123  04 1104 QUALITY                       99.9     012 QUAL1104  N 004 001
00001  05 0001 TAILINGS SITE IDENTIFIER      X(12)    002 SITE:ID01 C 012
00002  05 0002 MINE NAME                     X(10)    003 MINE:NM02 C 010
00003  05 0003 OWNER                         X(13)    004 OWNER03   C 013
00004  05 0004 PROVINCE                      X(2)     005 PROV04    C 002
00005  05 0005 NTS MAP SHEET                 X(6)     006 NTS05     C 006
00006  05 0006 BASIN CODE                    X(4)     007 BASIN06   C 004
00124  05 *026 CODING FORM PAGE                       001 CFPAGE    N 007
00007  06 0001 TAILINGS SITE IDENTIFIER      X(12)    002 TLNGST01  C 012
00008  06 *001 STUDY IDENTIFIER                       003 STDYID:01 C 003
00009  06 0021 STUDY TITLE                   X(240)   004 STDYTTL21 C 120
00010  06 *002 SOURCE CODE                            005 SRCCDE:02 C 002
00011  06 0022 MAIN SPONSOR                  X(25)    006 MNSPNSR22 C 025
00012  06 0023 PUBLICATION DATE              9999     007 PBLCTND23 N 004
00013  06 0024 STUDY DESCRIPTION             X(35)    008 STDYDSC24 C 035
00125  06 *026 CODING FORM-PAGE                       001 CFPAGE    N 007
```

```
00014  07 0001 TAILINGS SITE IDENTIFIER      X(12)   002 TLNGSST01 C 012
00015  07 #001 STUDY IDENTIFIER                      003 STDYID:01 C 003
00016  07 0704 SAMPLE IDENTIFIER             X(7)    004 SMPL704:1 C 007
00017  07 0704 SAMPLE IDENTIFIER             X(7)    005 SMPL704:2 C 007
00018  07 0704 SAMPLE IDENTIFIER             X(7)    006 SMPL704:3 C 007
00019  07 0704 SAMPLE IDENTIFIER             X(7)    007 SMPL704:4 C 007
00020  07 0704 SAMPLE IDENTIFIER             X(7)    008 SMPL704:5 C 007
00021  07 0704 SAMPLE IDENTIFIER             X(7)    009 SMPL704:6 C 007
00022  07 #013 GROUP NAME                             010 GRPNAM:13 C 015
00023  07 #014 SPECIES NAME: GENUS                    011 SGENUS:14 C 015
00024  07 #015 SPECIES NAME: SPECIES                  012 SPECIE:15 C 015
00025  07 #016 GROUP CODE                             013 GRPCDE:16 C 001
00026  07 #017 SPECIES CODE                           014 SPSCDE:17 C 003
00027  07 #018 AGE                                    015 AGE:18    N 003
00028  07 #019 AGE UNITS                              016 AGEUNT:19 C 002
00029  07 #020 WEIGHT                                 017 WEIGHT:20 N 004
00030  07 #021 WEIGHT UNIT                            018 WGHTUN:21 C 002
00031  07 #022 FORK LENGTH                            019 FRKLNG:22 N 005 001
00032  07 #007 PRECISION                              020 PRCSN:22  C 001
00033  07 #023 FORK LENGTH UNIT                       021 FRKUNT:23 C 002
00034  07 #024 SEX                                    022 SEX:24    C 001
00035  07 #025 SPAWNING CONDITION                     023 SPWNGC:25 C 001
00126  07 #026 CODING FORM PAGE                       001 CFPAGE    N 007
00036  08 0001 TAILINGS SITE IDENTIFIER      X(12)   002 TLNGSST01 C 012
00037  08 0704 SAMPLE IDENTIFIER             X(7)    003 SMPLID704 C 007
00038  08 #003 STUDY IDENTIFIER                       004 STDYID:03 C 003
00039  08 #004 SRC'S SAMPLE TYPE                      005 SRCSMP:04 C 003
00040  08 1002 LABORATORY IDENTIFIER         XXX     006 LABID1002 C 003
00041  08 1001 MEASUREMENT TYPE              X(6)    008 MSRMT1001 N 006 000
00042  08 0713 SAMPLE TREATMENT              XXX     009 SMPLTR713 C 003
00043  08 #005 SAMPLE TREATMENT (SRC, FIELD)          010 SMPLTR:05 C 003
00044  08 1101 MATERIAL                      X(20)   011 MTRAL1101 C 020
00045  08 #006 LESS THAN OR EQUAL TO                  012 LSTHN1102 C 002
00046  08 1102 VALUE                         n/a     013 VALUE1102 N 010 005
00047  08 #008 PRECISION                              014 PRCSN1102 C 001
00048  08 1103 UNITS                         99      015 UNITS1103 N 002
00049  08 #008 WEIGHT TYPE                            016 WTTYP1102 C 001
00050  08 1104 QUALITY                       99.9    017 QUL1Y1104 C 004
00127  08 #026 CODING FORM PAGE                       001 CFPAGE    N 007
00128  08 #002 SOURCE CODE                            007 SRCCDE:02 C 003
```

```
00051  09 0001 TAILINGS SITE IDENTIFIER
00052  09 *001 STUDY IDENTIFIER
00053  09 0701 REFERENCE IDENTIFIER
00054  09 *009 LOCATION CODE
00055  09 0702 SAMPLE DATE (YYMMDD)
00056  09 0703 SAMPLING TIME (HHMMSS)
00057  09 0705 SAMPLE TYPE
00058  09 0704 SAMPLE IDENTIFIER
00059  09 0704 SAMPLE IDENTIFIER
00060  09 0704 SAMPLE IDENTIFIER
00061  09 0704 SAMPLE IDENTIFIER
00062  09 0704 SAMPLE IDENTIFIER
00063  09 0704 SAMPLE IDENTIFIER
00064  09 0706 SAMPLE DESCRIPTION
00065  09 0707 LOCATION ACCURACY
00066  09 0708 EASTING
00067  09 0709 NORTHING
00068  09 0710 ZONE
00069  09 0711 SURFACE ELEVATION
00070  09 *007 PRECISION
00071  09 0712 SAMPLE DEPTH
00072  09 *007 PRECISION
00073  09 *010 SAMPLE METHOD (FIELD)
00074  09 *011 SEDIMENT TYPE
00075  09 *012 FLOW
00129  09 *026 CODING FORM PAGE
00076  10 0001 TAILINGS SITE IDENTIFIER
00077  10 *010 STUDY IDENTIFIER
00078  10 *002 SOURCE CODE
00079  10 0601 STUDY AUTHOR LAST NAME
00080  10 0602 STUDY AUTHOR GIVEN NAME
00081  10 0603 STUDY AUTHOR'S AFFILIATION
00130  10 *026 CODING FORM PAGE
00082  11 0001 TAILINGS SITE IDENTIFIER
00083  11 *001 STUDY IDENTIFIER
00084  11 *002 SOURCE CODE
00085  11 0801 KEY WORD
00131  11 *026 CODING FORM PAGE
```

```
X(12)     002 TLNGSST01 C 012
          003 STDYID:01 C 003
X(12)     004 RFRNCI701 C 012
          005 LCTNCD:09 C 003
9(6)      006 SMPLDT702 N 006
9(6)      007 SMPLTM703 N 006
9999      008 SMPLTP705 N 004
X(7)      009 SMPL704:1 C 007
X(7)      010 SMPL704:2 C 007
X(7)      011 SMPL704:3 C 007
X(7)      012 SMPL704:4 C 007
X(7)      013 SMPL704:5 C 007
X(7)      014 SMPL704:6 C 007
X(35)     015 SMPLDS706 C 035
9999.9    016 LCNACC707 C 006 001
9(7).9    017 EASTNG708 N 009 001
9(8).9    018 NORTHG709 N 010 001
99        019 ZONE710   N 002
9(5).99   020 SRFCEL711 N 008 002
          021 PRCSN711  C 001
9(5).99   022 SMPLDP712 N 008 002
          023 PRCSN712  C 001
          024 SMPLMT:10 C 002
          025 SDMNTP:11 C 002
          026 FLOW:12   C 002
          001 CFPAGE    N 007
X(12)     002 TLNGSST01 C 012
          003 STDYID:01 C 003
          004 SRCCDE:02 C 002
X(20)     005 STDYLS601 C 020
X(20)     006 STDYGV602 C 020
X(20)     007 STDYFL603 C 020
          001 CFPAGE    N 007
X(12)     002 TLNGSST01 C 012
          003 STDYID:01 C 003
          004 SRCCDE:02 C 002
X(20)     005 KEYWRD801 C 020
          001 CFPAGE    N 007
```

## APPENDIX F

## FILE STRUCTURE AND DATA LISTING FOR TABLE01.

```
. display structure
STRUCTURE FOR FILE:  C:TABLE01 .DBF
NUMBER OF RECORDS:   00001
DATE OF LAST UPDATE: 02/28/84
PRIMARY USE DATABASE
FLD       NAME      TYPE WIDTH   DEC
001     SITE:ID00    C    012
002     MINE:NN02    C    010
003     OWNER03      C    013
004     PROV         C    002
005     NTS05        C    006
006     BASIN06      C    004
** TOTAL **             00048
.
```

```
m=5,l=60,w=132
y
TABLE01 - TAILINGS SITE INFORMATION
n
n
15,site:id00
1. Tailings Site Identifier
15,mine:nm02
2. Mine Name
15,owner03
3. Owner
5,prov
4. Province
10,nts05
5. NTS Map Sheet
10,basin06
6. Basin
```

TABLE01 - TAILINGS SITE INFORMATION

| 1. Tailings Site Identifier | 2. Mine Name | 3. Owner | 4. Provi nce | 5. NTS Map Sheet | 6. Basin |
|---|---|---|---|---|---|
| BEAVERLODGEL | ELDORADO-S | ELDORADO | SA | 74N10E | 07MC |

## APPENDIX G

## FILE STRUCTURE AND DATA LISTING FOR TABLE02.

```
USE TABLE02
. DISPLAY STRUCTURE
STRUCTURE FOR FILE:  C:TABLE02 .DBF
NUMBER OF RECORDS:   00001
DATE OF LAST UPDATE: 01/27/84
PRIMARY USE DATABASE
FLD       NAME       TYPE WIDTH   DEC
001     SITE:ID01     C    012
002     TITLE21       C    120
003     SPON22        C    025
004     PUBDATE23     N    004
005     DESC24        C    035
** TOTAL **            00197
.
```

```
s=0,l=60,w=132
y
20. STUDY (Ref. TABLE02)
n
n
15,site:id01
1. Tailings Site Identifier
120,title21
21. Study Title
30,spon22
22. Main Sponsor
6,pubdate23
23. Publication Date
40,desc24
24. Study Description
```

20. STUDY (Ref. TABLE02)

| 1. Tailings Site Identifier | 22. Main Sponsor | 23. Publication Date | 21. Study Title 24. Study Description |
|---|---|---|---|
| BEAVERLODGEL | SASK. RESEARCH COUNCIL | 1983 | LEVELS OF 226RA, 210PB AND TOTAL U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL AQUAT.FOODCHAIN,RA226,PB210,U,FISH |

. DISPLAY ALL
00001 BEAVERLODGE LEVELS OF 226RA, 210PB AND TOTAL U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL
SASK. RESEARCH COUNCIL 1983 AQUAT.FOODCHAIN,RA226,PB210,U,FISH
.

## APPENDIX H

## FILE STRUCTURE AND DATA LISTING FOR TABLE03.

```
USE TABLE03
. DISPLAY STRUCTURE
STRUCTURE FOR FILE:  C:TABLE03 .DBF
NUMBER OF RECORDS:   00003
DATE OF LAST UPDATE: 02/24/84
PRIMARY USE DATABASE
FLD       NAME       TYPE WIDTH   DEC
001     TAIL:ST01     C    012
002     REF:ID701     C    012
003     SMPLDT702     C    006
004     SMPLTM703     C    006
005     SMPLID704     C    007
006     SMPLTP705     N    004
007     SMPLDS706     C    035
008     LOCACC707     N    006    001
009     EAST708       N    009    001
010     NORTH709      N    010    001
011     ZONE710       N    002
012     ELEV711       N    008    002
013     PR711         C    001
014     DEPTH712      N    008    002
015     PR712         C    001
** TOTAL **            00128
.
```

```
USE TABLE03
. LIST
00001  BEAVERLODGEL BEAV.L,STA.2 061779 090000 5034094  1110                    200.0      395.0   6601100.0
   240.50 1      0.50 2
00002  BEAVERLODGEL BEAV.L,STA.2 061779 090000 5034095  1110                    200.0    39500.0   6601100.0
   240.50 1     15.00 2
00003  BEAVERLODGEL BEAV.L,STA.2 061779 090000 5034096  1110                    200.0    39500.0   6601100.0
   240.50 1     35.00 2
.
```

# APPENDIX I

## FILE STRUCTURE AND DATA LISTING FOR TABLE04.

```
DISPLAY STRUCTURE
STRUCTURE FOR FILE:  C:TABLE04 .DBF
NUMBER OF RECORDS:   00072
DATE OF LAST UPDATE: 05/21/84
PRIMARY USE DATABASE
FLD       NAME       TYPE WIDTH   DEC
001     SITE:ID       C    012
002     SMPLID704     C    007
003     LABID         C    003
004     SRCCDE:02     C    003
005     TYP1001       N    006
006     TREAT713      C    003
007     MTRL1101      C    020
008     LESSTHN       C    002
009     VALU1102      N    010    005
010     UNIT1103      N    002
011     PR1103        C    001
012     QUAL1104      N    004    001
** TOTAL **            00074
.
```

. LIST

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 00001 | BEAVERLODGEL | 5034094 | 231 | 6201 | 001 | BICARBONATE | | 83.00000 | 2 | 0 0.0 |
| 00002 | BEAVERLODGEL | 5034094 | 231 | 6301 | 001 | CARBONATE | | 0.00000 | 2 | 0 0.0 |
| 00003 | BEAVERLODGEL | 5034094 | 231 | 20005 | 001 | CALCIUM AS CALCIUM | | 21.00000 | 2 | 0 0.0 |
| 00004 | BEAVERLODGEL | 5034094 | 231 | 17204 | 001 | CHLORIDE | | 21.00000 | 2 | 0 0.0 |
| 00005 | BEAVERLODGEL | 5034094 | 231 | 8501 | 001 | HYDROXIDE W/CO3-HCO3 | | 0.00000 | 2 | 0 0.0 |
| 00006 | BEAVERLODGEL | 5034094 | 231 | 12005 | 001 | MAGNESIUM AS MG | | 6.30000 | 2 | 1 0.0 |
| 00007 | BEAVERLODGEL | 5034094 | 231 | 19005 | 001 | POTASSIUM | | 1.00000 | 2 | 1 0.0 |
| 00008 | BEAVERLODGEL | 5034094 | 231 | 11005 | 001 | SODIUM | | 26.00000 | 2 | 0 0.0 |
| 00009 | BEAVERLODGEL | 5034094 | 231 | 16301 | 001 | SULFATE | | 20.00000 | 2 | 0 0.0 |
| 00010 | BEAVERLODGEL | 5034094 | 231 | 7110 | 002 | NITROGEN,NO2+NO3 | | 0.01400 | 2 | 3 0.0 |
| 00011 | BEAVERLODGEL | 5034094 | 231 | 7022 | 002 | NITROGEN, KJELDAHL | | 0.14600 | 2 | 2 0.0 |
| 00012 | BEAVERLODGEL | 5034094 | 231 | 15206 | 002 | ORTHO PHOSPHATE AS P | < | 0.01000 | 2 | 2 0.0 |
| 00013 | BEAVERLODGEL | 5034094 | 231 | 15406 | 002 | PHOSPHORUS, TOTAL | | 0.04000 | 2 | 2 0.0 |
| 00014 | BEAVERLODGEL | 5034094 | 231 | 6009 | 002 | CARBON,TOTAL ORGANIC | | 6.00000 | 2 | 0 0.0 |
| 00015 | BEAVERLODGEL | 5034094 | 231 | 10451 | 001 | TOTAL DISSLVD SOLIDS | | 127.00000 | 2 | 0 0.0 |
| 00016 | BEAVERLODGEL | 5034094 | 231 | 82502 | 003 | LEAD-210, TOTAL | < | 0.02000 | 79 | 1 0.0 |
| 00017 | BEAVERLODGEL | 5034094 | 231 | 86503 | 003 | RADIUM 226, TOTAL | | 0.06000 | 79 | 2 0.0 |
| 00018 | BEAVERLODGEL | 5034094 | 231 | 86510 | 003 | RADIUM 226, DISSLVD | | 0.03000 | 79 | 2 0.0 |
| 00019 | BEAVERLODGEL | 5034094 | 231 | 90001 | 003 | THORIUM, COLOR | < | 0.10000 | 3 | 1 0.0 |
| 00020 | BEAVERLODGEL | 5034094 | 231 | 90515 | 003 | THORIUM 228, TOTAL | < | 0.01000 | 79 | 1 0.0 |
| 00021 | BEAVERLODGEL | 5034094 | 231 | 90510 | 003 | THORIUM 230, TOTAL | < | 0.01000 | 79 | 1 0.0 |
| 00022 | BEAVERLODGEL | 5034094 | 231 | 90502 | 003 | THORIUM 232, TOTAL | < | 0.01000 | 79 | 1 0.0 |
| 00023 | BEAVERLODGEL | 5034094 | 231 | 92001 | 003 | URANIUM, TOTAL | | 180.00000 | 3 | 0 0.0 |
| 00024 | BEAVERLODGEL | 5034094 | 231 | 7557 | 002 | NITROGEN, AMMONIA | | -0.04400 | 2 | 3 0.0 |
| 00025 | BEAVERLODGEL | 5034095 | 231 | 6201 | 001 | BICARBONATE | | 84.00000 | 2 | 0 0.0 |
| 00026 | BEAVERLODGEL | 5034095 | 231 | 6301 | 001 | CARBONATE | | 0.00000 | 2 | 0 0.0 |
| 00027 | BEAVERLODGEL | 5034095 | 231 | 20005 | 001 | CALCIUM AS CALCIUM | | 20.00000 | 2 | 0 0.0 |
| 00028 | BEAVERLODGEL | 5034095 | 231 | 17204 | 001 | CHLORIDE | | 23.00000 | 2 | 0 0.0 |
| 00029 | BEAVERLODGEL | 5034095 | 231 | 8501 | 001 | HYDROXIDE W/CO3-HCO3 | | 0.00000 | 2 | 0 0.0 |
| 00030 | BEAVERLODGEL | 5034095 | 231 | 12005 | 001 | MAGNESIUM AS MG | | 5.10000 | 2 | 1 0.0 |
| 00031 | BEAVERLODGEL | 5034095 | 231 | 19005 | 001 | POTASSIUM | | 0.90000 | 2 | 1 0.0 |
| 00032 | BEAVERLODGEL | 5034095 | 231 | 11005 | 001 | SODIUM | | 25.00000 | 2 | 0 0.0 |
| 00033 | BEAVERLODGEL | 5034095 | 231 | 16301 | 001 | SULPHATE | | 27.00000 | 2 | 0 0.0 |
| 00034 | BEAVERLODGEL | 5034095 | 231 | 7110 | 002 | NITROGEN, NO2+NO3 | | 0.01200 | 2 | 3 0.0 |
| 00035 | BEAVERLODGEL | 5034095 | 231 | 7022 | 002 | NITROGEN, KJELDAHL | | 0.14800 | 2 | 3 0.0 |
| 00036 | BEAVERLODGEL | 5034095 | 231 | 15206 | 002 | ORTHO PHOSPHATE AS P | < | 0.01000 | 2 | 2 0.0 |
| 00037 | BEAVERLODGEL | 5034095 | 231 | 15406 | 002 | PHOSPHOROUS, TOTAL | | 0.03000 | 2 | 2 0.0 |
| 00038 | BEAVERLODGEL | 5034095 | 231 | 6009 | 002 | CARBON,TOTAL ORGANIC | | 4.00000 | 2 | 0 0.0 |
| 00039 | BEAVERLODGEL | 5034095 | 231 | 10451 | 001 | TOTAL DISSLVD SOLIDS | | 130.00000 | 2 | 0 0.0 |
| 00040 | BEAVERLODGEL | 5034095 | 231 | 82502 | 003 | LEAD 210, TOTAL | < | 0.02000 | 79 | 1 0.0 |
| 00041 | BEAVERLODGEL | 5034095 | 231 | 86503 | 003 | RADIUM 226, TOTAL | | 0.06000 | 79 | 1 0.0 |
| 00042 | BEAVERLODGEL | 5034095 | 231 | 86510 | 003 | RADIUM 226.DISSOLVED | | 0.04000 | 79 | 2 0.0 |
| 00043 | BEAVERLODGEL | 5034095 | 231 | 90001 | 003 | THORIUM, COLOR | < | 0.10000 | 3 | 1 0.0 |
| 00044 | BEAVERLODGEL | 5034095 | 231 | 90515 | 003 | THORIUM 228, TOTAL | < | 0.01000 | 79 | 1 0.0 |
| 00045 | BEAVERLODGEL | 5034095 | 231 | 90510 | 003 | THORIUM 230, TOTAL | < | 0.01000 | 79 | 1 0.0 |
| 00046 | BEAVERLODGEL | 5034095 | 231 | 90502 | 003 | THORIUM 232, TOTAL | < | 0.01000 | 79 | 2 0.0 |
| 00047 | BEAVERLODGEL | 5034095 | 231 | 92001 | 003 | URANIUM, TOTAL | | 230.00000 | 3 | 0 0.0 |
| 00048 | BEAVERLODGEL | 5034095 | 231 | 7557 | 002 | NITROGEN, AMMONIA | | 0.00400 | 2 | 3 0.0 |
| 00049 | BEAVERLODGEL | 5034096 | 231 | 6201 | 001 | BICARBONATE | | 83.00000 | 2 | 0 0.0 |
| 00050 | BEAVERLODGEL | 5034096 | 231 | 6301 | 001 | CARBONATE | | 0.00000 | 2 | 0 0.0 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 00051 | BEAVERLODGEL | 5034096 | 231 | 20005 | 001 | CALCIUM AS CALCIUM | | 21.00000 | 2 | 0 | 0.0 |
| 00052 | BEAVERLODGEL | 5034096 | 231 | 17204 | 001 | CHLORIDE | | 21.00000 | 2 | 0 | 0.0 |
| 00053 | BEAVERLODGEL | 5034096 | 231 | 8501 | 001 | HYDROXIDE W/CO3-HCO3 | | 0.00000 | 2 | 0 | 0.0 |
| 00054 | BEAVERLODGEL | 5034096 | 231 | 12005 | 001 | MAGNESIUM AS MG | | 6.10000 | 2 | 1 | 0.0 |
| 00055 | BEAVERLODGEL | 5034096 | 231 | 19005 | 001 | POTASSIUM | | 0.80000 | 2 | 1 | 0.0 |
| 00056 | BEAVERLODGEL | 5034096 | 231 | 11005 | 001 | SODIUM | | 24.00000 | 2 | 0 | 0.0 |
| 00057 | BEAVERLODGEL | 5034096 | 231 | 16301 | 001 | SULPHATE | | 35.00000 | 2 | 0 | 0.0 |
| 00058 | BEAVERLODGEL | 5034096 | 231 | 7110 | 002 | NITROGEN, NO2+NO3 | | 0.01200 | 2 | 3 | 0.0 |
| 00059 | BEAVERLODGEL | 5034096 | 231 | 7022 | 002 | NITROGEN, KJELDAHL | | 0.08800 | 2 | 2 | 0.0 |
| 00060 | BEAVERLODGEL | 5034096 | 231 | 15206 | 002 | ORTHO PHOSPHATE AS P | < | 0.01000 | 2 | 2 | 0.0 |
| 00061 | BEAVERLODGEL | 5034096 | 231 | 15406 | 002 | PHOSPHORUS, TOTAL | | 0.04000 | 2 | 2 | 0.0 |
| 00062 | BEAVERLODGEL | 5034096 | 231 | 6009 | 002 | CARBON,TOTAL ORGANIC | | 9.00000 | 2 | 0 | 0.0 |
| 00063 | BEAVERLODGEL | 5034096 | 231 | 10451 | 001 | TOTAL DISSLVD SOLIDS | | 124.00000 | 2 | 0 | 0.0 |
| 00064 | BEAVERLODGEL | 5034096 | 231 | 82502 | 003 | LEAD 210, TOTAL | < | 0.02000 | 79 | 1 | 0.0 |
| 00065 | BEAVERLODGEL | 5034096 | 231 | 86503 | 003 | RADIUM 226, TOTAL | | 0.05000 | 79 | 1 | 0.0 |
| 00066 | BEAVERLODGEL | 5034096 | 231 | 86510 | 003 | RADIUM 226,DISSOLVED | | 0.04000 | 79 | 1 | 0.0 |
| 00067 | BEAVERLODGEL | 5034096 | 231 | 90001 | 003 | THORIUM, COLOR | < | 0.10000 | 3 | 1 | 0.0 |
| 00068 | BEAVERLODGEL | 5034096 | 231 | 90515 | 003 | THORIUM 228, TOTAL | < | 0.01000 | 79 | 1 | 0.0 |
| 00069 | BEAVERLODGEL | 5034096 | 231 | 90510 | 003 | THORIUM 230, TOTAL | < | 0.01000 | 79 | 1 | 0.0 |
| 00070 | BEAVERLODGEL | 5034096 | 231 | 90502 | 003 | THORIUM 232, TOTAL | < | 0.01000 | 79 | 1 | 0.0 |
| 00071 | BEAVERLODGEL | 5034096 | 231 | 92001 | 003 | URANIUM, TOTAL | | 390.00000 | 3 | 0 | 0.0 |
| 00072 | BEAVERLODGEL | 5034096 | 231 | 7557 | 002 | NITROGEN, AMMONIA | | 0.03900 | 2 | 3 | 0.0 |

## APPENDIX J

## FILE STRUCTURE AND DATA LISTING FOR TABLE05.

```
. DISPLAY STRUCTURE
STRUCTURE FOR FILE:  C:TABLE05 .DBF
NUMBER OF RECORDS:   00013
DATE OF LAST UPDATE: 04/11/84
PRIMARY USE DATABASE
FLD       NAME       TYPE WIDTH   DEC
001     CFPAGE        N    007
002     SITE:ID01     C    012
003     MINE:NM02     C    010
004     OWNER03       C    013
005     PROV04        C    002
006     NTS05         C    006
007     BASIN06       C    004
** TOTAL **             00055
.
```

```
M=10,L=54,W=145
Y
TABLE05 - TAILINGS SITE
N
N
7,CFPAGE
CODING FORM PAGE
15,SITE:ID01
1. TAILINGS SITE IDENTIFIER
15,MINE:MN02
2. MINE NAME
15,OWNER03
3. OWNER
12,PROV04
4. PROVINCE
11,NTS05
5. NTS MAP SHEET
9,BASIN06
6. BASIN CODE
```

TABLE05 - TAILINGS SITE

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 2. MINE NAME | 3. OWNER | 4. PROVINCE | 5. NTS MAP SHEET | 6. BASIN CODE |
|---|---|---|---|---|---|---|
| 2 | BEAVERLODGEL | ELDORADO-S | ELDORADO | SA | 74N/9W | 07MC |
| 209 | BEAVERLODGEL | ELDORADO-S | ELDORADO | SA | 74N/9W | 07MC |
| 238 | BEAVERLODGEL | ELDORADO-S | ELDORADO | SA | 74N/9W | 07MC |
| 249 | BEAVERLODGEL | ELDORADO-S | ELDORADO | SA | 74N/9W | 07MC |
| 322 | BEAVERLODGEL | ELDORADO-S | ELDORADO | SA | 74N/10 | 07MC |
| 398 | BEAVERLODGEL | ELDORADO-S | ELDORADO | SA | 74N/9W | 07MC |
| 426 | BEAVERLODGEL | ELDORADO-S | ELDORADO | SA | 74N/10E | 07MC |
| 479 | BEAVERLODGEL | ELDORADO-S | ELDORADO | SA | 74N/10E | 07MC |
| 564 | BEAVERLODGEL | ELDORADO-S | ELDORADO | SA | 74N/9W | 07MC |
| 591 | BEAVERLODGEL | ELDORADO-S | ELDORADO | SA | 74N/9W | 07MC |
| 601 | BEAVERLODGEL | ELDORADO-S | ELDORADO | SA | 74N/9W | 07MC |
| 612 | BEAVERLODGEL | ELDORADO-S | ELDORADO | SA | 74N/9W | 07MC |
| 649 | BEAVERLODGEL | ELDORADO-S | ELDORADO | SA | 74N/9W | 07MC |

## APPENDIX K

## FILE STRUCTURE AND DATA LISTING FOR TABLE06.

```
SET PRINT ON
. DISPLAY STRUCTURE
STRUCTURE FOR FILE:  C:TABLE06 .DBF
NUMBER OF RECORDS:   00013
DATE OF LAST UPDATE: 04/11/84
PRIMARY USE DATABASE
FLD       NAME       TYPE WIDTH   DEC
001     CFPAGE        N    007
002     TLN6ST01      C    012
003     STDYID:01     C    003
004     STDYTTL21     C    120
005     SRCCDE:02     C    002
006     MNSPNSR22     C    025
007     PBLCTND23     C    004
008     STDYDSC24     C    035
** TOTAL **            00209
.
```

```
M=1,L=54,W=137
Y
TABLE06-1: STUDY, AUTHORS AND KEYWORDS
N
N
7,CFPAGE
CODING FORM PAGE
15,TLNGSTO1
1. TAILINGS SITE IDENTIFIER
11,STDYID:01
+01. STUDY IDENTIFIER
120,STDYTTL21
21. STUDY TITLE
```

```
M=1,L=54,W=137
Y
TABLE06-2: STUDY, AUTHORS AND KEYWORDS
N
N
7,CFPAGE
CODING FORM PAGE
15,TLNGST01
1. TAILINGS SITE IDENTIFIER
11,STDYID:01
*01. STUDY IDENTIFIER
6,SRCCDE:02
*02. SOURCE CODE
25,MNSPNSR22
22. MAIN SPONSOR
11,PBLCTND23
23. PUBLICATION DATE
35,STDYDSC24
24. STUDY DESCRIPTION
```

TABLE06-1: STUDY, AUTHORS AND KEYWORDS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | *01. STUDY IDENTIFIER | 21. STUDY TITLE |
|---|---|---|---|
| 3 | BEAVERLODGEL | 001 | LEVELS OF 226RA, 210PB AND TOTLA U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL |
| 210 | BEAVERLODGEL | 001 | LEVELS OF 226RA, 210PB AND TOTAL U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL |
| 239 | BEAVERLODGEL | 001 | LEVELS OF 226RA, 210PB AND TOTAL U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL |
| 250 | BEAVERLODGEL | 001 | LEVELS OF 226RA, 210PB AND TOTAL U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL |
| 323 | BEAVERLODGEL | 001 | LEVELS OF 226RA, 210PB AND TOTAL U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL |
| 399 | BEAVERLODGEL | 001 | LEVELS OF 226RA, 210PB AND TOTAL U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL |
| 427 | BEAVERLODGEL | 001 | LEVELS OF 226RA, 210PB AND TOTAL U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL |
| 480 | BEAVERLODGEL | 001 | LEVELS OF 226RA, 210PB AND TOTAL U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL |
| 565 | BEAVERLODGEL | 001 | LEVELS OF 226RA, 210PB AND TOTAL U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL |
| 592 | BEAVERLODGEL | 001 | LEVELS OF 226RA, 210PB AND TOTAL U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL |
| 602 | BEAVERLODGEL | 001 | LEVELS OF 226RA, 210PB AND TOTAL U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL |
| 613 | BEAVERLODGEL | 001 | LEVELS OF 226RA, 210PB AND TOTAL U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL |
| 650 | BEAVERLODGEL | 001 | LEVELS OF 226RA, 210PB AND TOTAL U IN FISH NEAR A SASKATCHEWAN URANIUM MINE AND MILL |

TABLE06-2: STUDY, AUTHORS AND KEYWORDS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | *01. STUDY IDENTIFIER | *02. SOURCE CODE | 22. MAIN SPONSOR | 23. PUBLICATION DATE | 24. STUDY DESCRIPTION |
|---|---|---|---|---|---|---|
| 3 | BEAVERLODGEL | 001 | 231 | SASK RESEARCH COUNCIL | 1983 | AQUAT.FOODCHAIN,RA226,PB210,U,FISH |
| 210 | BEAVERLODGEL | 001 | 231 | SASK RESEARCH COUNCIL | 1983 | AQUAT. FOODCHAIN,RA210,PB226,U,FISH |
| 239 | BEAVERLODGEL | 001 | 231 | SASK RESEARCH COUNCIL | 1983 | AQUAT. FOODCHAIN,RA226,PB210,U,FISH |
| 250 | BEAVERLODGEL | 001 | 231 | SASK RESEARCH COUNCIL | 1983 | AQUAT. FOODCHAIN,RA226,PB210,U,FISH |
| 323 | BEAVERLODGEL | 001 | 231 | SASK RESEARCH COUNCIL | 1983 | AQUAT.FOODCHAIN,RA226,PB210,U,FISH |
| 399 | BEAVERLODGEL | 001 | 231 | SASK RESEARCH COUNCIL | 1983 | AQUAT.FOODCHAIN,RA226,PB210,U,FISH |
| 427 | BEAVERLODGEL | 001 | 231 | SASK RESEARCH COUNCIL | 1983 | AQUAT.FOODCHAIN,RA226,PB210,U,FISH |
| 480 | BEAVERLODGEL | 001 | 231 | SASK RESAERCH COUNCIL | 1983 | AQUAT.FOODCHAIN,RA226,PB210,U,FISH |
| 565 | BEAVERLODGEL | 001 | 231 | SASK RESEARCH COUNCIL | 1983 | AQUAT.FOODCHAIN,RA226,PB210,U,FISH |
| 592 | BEAVERLODGEL | 001 | 231 | SASK RESEARCH COUNCIL | 1983 | AQUAT.FOODCHAIN,RA226,PB210,U,FISH |
| 602 | BEAVERLODGEL | 001 | 231 | SASK RESEARCH COUNCIL | 1983 | AQUAT.FOODCHAIN,RA226,PB210,U,FISH |
| 613 | BEAVERLODGEL | 001 | 231 | SASK RESAERCH COUNCIL | 1983 | AQUAT.FOODCHAIN,RA226,PB210,U,FISH |
| 650 | BEAVERLODGEL | 001 | 231 | SASK RESEARCH COUNCIL | 1983 | AQUAT.FOODCHAIN,RA226,PB210,U,FISH |

## APPENDIX L

## FILE STRUCTURE AND DATA LISTING FOR TABLE07.

```
. DISPLAY D_STRUCTURE
STRUCTURE FOR FILE:  C:TABLE07 .DBF
NUMBER OF RECORDS:   00231
DATE OF LAST UPDATE: 05/17/84
PRIMARY USE DATABASE
FLD       NAME       TYPE WIDTH   DEC
001     CFPAGE        N    007
002     TLNGSST01     C    012
003     STDYID:01     C    003
004     SMPL704:1     C    007
005     SMPL704:2     C    007
006     SMPL704:3     C    007
007     SMPL704:4     C    007
008     SMPL704:5     C    007
009     SMPL704:6     C    007
010     GRFNAM:13     C    015
011     SGENUS:14     C    015
012     SPECIE:15     C    015
013     GRPCDE:16     C    001
014     SPSCDE:17     C    003
015     AGE:18        N    003
016     AGEUNT:19     C    002
017     WEIGHT:20     N    004
018     WGHTUN:21     C    002
019     FRKLNG:22     N    005    001
020     PRCSN:22      C    001
021     FRKUNT:23     C    002
022     SEX:24        C    001
023     SPWNGC:25     C    001
** TOTAL **            00135
.
```

```
M=1,L=54,W=145
Y
TABLE07-1 - BIOLOGICAL INFORMATION (SAMPLE)
3
N
7,CFPAGE
CODING FORM PAGE
15,TLNGSST01
1. TAILINGS SITE IDENTIFIER
11,STDYID:01
*01. STUDY IDENTIFIER
13,SMPL704:1
*704. SAMPLE IDENTIFIER-1
13,SMPL704:2
*704. SAMPLE IDENTIFIER-2
13,SMPL704:3
*704. SAMPLE IDENTIFIER-3
13,SMPL704:4
*704. SAMPLE IDENTIFIER-4
13,SMPL704:5
*704. SAMPLE IDENTIFIER-5
13,SMPL704:6
*704. SAMPLE IDENTIFIER-6
```

```
M=10,L=54,W=145
Y
TABLE07-2: BIOLOGICAL INFORMATION (SAMPLE)
N
N
7,CFPAGE
CODING FORM PAGE
16,GRPNAM:13
*13. GROUP NAME
19,SGENUS:14
*14. SPECIES NAME: GENUS
19,SPECIE:15
*15. SPECIES NAME: SPECIES
6,GRPCDE:16
*16. GROUP CODE
8,SPSCDE:17
*17. SPECIES CODE
```

```
M=1,L=54,W=145
Y
TABLE07-3: BIOLOGICAL INFORMATION (SAMPLE)
N
N
7,CFPAGE
CODING FORM PAGE
5,AGE:18
*18. AGE
6,AGEUNT:19
*19. AGE UNIT
5,WEIGHT:20
*20. WGHT
6,WGHTUN:21
*21. WGHT UNITS
7,FRKLNG:22
*22. FORK LENGTH
10,PRCSN:22
*07. PRECISION FORK LENGTH
7,FRKUNT:23
*23. FORK LENGTH UNIT
5,SEX:24
*24. SEX
10,SPWNGC:25
*25. SPAWNING CONDITION
```

TABLE07-1 - BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | #01. STUDY IDENTIFIER | #704. SAMPLE IDENTIFIER-1 | #704. SAMPLE IDENTIFIER-2 | #704. SAMPLE IDENTIFIER-3 | #704. SAMPLE IDENTIFIER-4 | #704. SAMPLE IDENTIFIER-5 | #704. SAMPLE IDENTIFIER-6 |
|---|---|---|---|---|---|---|---|---|
| 6 | BEAVERLODGEL | 001 | 372 | | | | | |
| 7 | BEAVERLODGEL | 001 | 372 | | | | | |
| 8 | BEAVERLODGEL | 001 | 372 | | | | | |
| 9 | BEAVERLODGEL | 001 | 372 | | | | | |
| 12 | BEAVERLODGEL | 001 | 371 | | | | | |
| 15 | BEAVERLODGEL | 001 | 370 | | | | | |
| 19 | BEAVERLODGEL | 001 | 306 | 307 | | | | |
| 24 | BEAVERLODGEL | 001 | 303 | 304 | 305 | | | |
| 29 | BEAVERLODGEL | 001 | 300 | 301 | 302 | | | |
| 33 | BEAVERLODGEL | 001 | 296 | 297 | | | | |
| 38 | BEAVERLODGEL | 001 | 293 | 294 | 295 | | | |
| 42 | BEAVERLODGEL | 001 | 290 | 291 | | | | |
| 45 | BEAVERLODGEL | 001 | 275 | | | | | |
| 45 | BEAVERLODGEL | 001 | 275 | | | | | |
| 45 | BEAVERLODGEL | 001 | 275 | | | | | |
| 45 | BEAVERLODGEL | 001 | 275 | | | | | |
| 45 | BEAVERLODGEL | 001 | 275 | | | | | |
| 45 | BEAVERLODGEL | 001 | 275 | | | | | |
| 45 | BEAVERLODGEL | 001 | 275 | | | | | |
| 45 | BEAVERLODGEL | 001 | 275 | | | | | |
| 45 | BEAVERLODGEL | 001 | 275 | | | | | |
| 45 | BEAVERLODGEL | 001 | 275 | | | | | |
| 45 | BEAVERLODGEL | 001 | 275 | | | | | |
| 45 | BEAVERLODGEL | 001 | 275 | | | | | |
| 48 | BEAVERLODGEL | 001 | 274 | | | | | |
| 49 | BEAVERLODGEL | 001 | 274 | | | | | |
| 50 | BEAVERLODGEL | 001 | 274 | | | | | |
| 53 | BEAVERLODGEL | 001 | 273 | | | | | |
| 57 | BEAVERLODGEL | 001 | 178 | 179 | | | | |
| 61 | BEAVERLODGEL | 001 | 175 | 176 | | | | |
| 65 | BEAVERLODGEL | 001 | 172 | 173 | | | | |
| 69 | BEAVERLODGEL | 001 | 169 | 170 | | | | |
| 73 | BEAVERLODGEL | 001 | 166 | 167 | | | | |
| 77 | BEAVERLODGEL | 001 | 163 | 164 | | | | |
| 81 | BEAVERLODGEL | 001 | 160 | 161 | | | | |
| 85 | BEAVERLODGEL | 001 | 157 | 158 | | | | |
| 88 | BEAVERLODGEL | 001 | 156 | | | | | |
| 91 | BEAVERLODGEL | 001 | 155 | | | | | |
| 94 | BEAVERLODGEL | 001 | 154 | | | | | |
| 97 | BEAVERLODGEL | 001 | 153 | | | | | |
| 100 | BEAVERLODGEL | 001 | 152 | | | | | |
| 103 | BEAVERLODGEL | 001 | 151 | | | | | |
| 108 | BEAVERLODGEL | 001 | 133 | 134 | 135 | | | |
| 112 | BEAVERLODGEL | 001 | 85 | 86 | | | | |
| 116 | BEAVERLODGEL | 001 | 76 | 77 | | | | |

TABLE07-1 - BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | #01. STUDY IDENTIFIER | #704. SAMPLE IDENTIFIER-1 | #704. SAMPLE IDENTIFIER-2 | #704. SAMPLE IDENTIFIER-3 | #704. SAMPLE IDENTIFIER-4 | #704. SAMPLE IDENTIFIER-5 | #704. SAMPLE IDENTIFIER-6 |
|---|---|---|---|---|---|---|---|---|
| 120 | BEAVERLODGEL | 001 | 73 | 74 | | | | |
| 124 | BEAVERLODGEL | 001 | 70 | 71 | | | | |
| 129 | BEAVERLODGEL | 001 | 67 | 68 | 69 | | | |
| 134 | BEAVERLODGEL | 001 | 55 | 56 | 57 | | | |
| 139 | BEAVERLODGEL | 001 | 49 | 50 | 51 | | | |
| 143 | BEAVERLODGEL | 001 | 46 | 47 | 48 | | | |
| 147 | BEAVERLODGEL | 001 | 43 | 44 | | | | |
| 151 | BEAVERLODGEL | 001 | 40 | 42 | | | | |
| 155 | BEAVERLODGEL | 001 | 37 | 38 | 39 | | | |
| 159 | BEAVERLODGEL | 001 | 35 | 36 | | | | |
| 162 | BEAVERLODGEL | 001 | 32 | | | | | |
| 167 | BEAVERLODGEL | 001 | 28 | 29 | 30 | | | |
| 172 | BEAVERLODGEL | 001 | 25 | 26 | 27 | | | |
| 177 | BEAVERLODGEL | 001 | 22 | 23 | 24 | | | |
| 180 | BEAVERLODGEL | 001 | 20 | | | | | |
| 184 | BEAVERLODGEL | 001 | 16 | 17 | | | | |
| 189 | BEAVERLODGEL | 001 | 13 | 14 | | | | |
| 193 | BEAVERLODGEL | 001 | 10 | 11 | 12 | | | |
| 198 | BEAVERLODGEL | 001 | 7 | 8 | 9 | | | |
| 203 | BEAVERLODGEL | 001 | 4 | 5 | 6 | | | |
| 207 | BEAVERLODGEL | 001 | 1 | 2 | | | | |
| 213 | BEAVERLODGEL | 001 | 286 | | | | | |
| 213 | BEAVERLODGEL | 001 | 286 | | | | | |
| 213 | BEAVERLODGEL | 001 | 286 | | | | | |
| 213 | BEAVERLODGEL | 001 | 286 | | | | | |
| 213 | BEAVERLODGEL | 001 | 286 | | | | | |
| 213 | BEAVERLODGEL | 001 | 286 | | | | | |
| 216 | BEAVERLODGEL | 001 | 285 | | | | | |
| 216 | BEAVERLODGEL | 001 | 285 | | | | | |
| 216 | BEAVERLODGEL | 001 | 285 | | | | | |
| 216 | BEAVERLODGEL | 001 | 285 | | | | | |
| 216 | BEAVERLODGEL | 001 | 285 | | | | | |
| 216 | BEAVERLODGEL | 001 | 285 | | | | | |
| 216 | BEAVERLODGEL | 001 | 285 | | | | | |
| 216 | BEAVERLODGEL | 001 | 285 | | | | | |
| 216 | BEAVERLODGEL | 001 | 285 | | | | | |
| 216 | BEAVERLODGEL | 001 | 285 | | | | | |
| 219 | BEAVERLODGEL | 001 | 284 | | | | | |
| 219 | BEAVERLODGEL | 001 | 284 | | | | | |
| 219 | BEAVERLODGEL | 001 | 284 | | | | | |
| 219 | BEAVERLODGEL | 001 | 284 | | | | | |
| 224 | BEAVERLODGEL | 001 | 64 | 65 | 66 | | | |
| 229 | BEAVERLODGEL | 001 | 61 | 62 | 63 | | | |
| 233 | BEAVERLODGEL | 001 | 58 | 59 | 60 | | | |
| 236 | BEAVERLODGEL | 001 | 53 | | | | | |

TABLE07-1 - BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | *01. STUDY IDENTIFIER | *704. SAMPLE IDENTIFIER-1 | *704. SAMPLE IDENTIFIER-2 | *704. SAMPLE IDENTIFIER-3 | *704. SAMPLE IDENTIFIER-4 | *704. SAMPLE IDENTIFIER-5 | *704. SAMPLE IDENTIFIER-6 |
|---|---|---|---|---|---|---|---|---|
| 244 | BEAVERLODGEL | 001 | 193 | 194 | 195 | | | |
| 247 | BEAVERLODGEL | 001 | 201 | | | | | |
| 253 | BEAVERLODGEL | 001 | 386 | | | | | |
| 253 | BEAVERLODGEL | 001 | 386 | | | | | |
| 253 | BEAVERLODGEL | 001 | 386 | | | | | |
| 253 | BEAVERLODGEL | 001 | 386 | | | | | |
| 255 | BEAVERLODGEL | 001 | 385 | | | | | |
| 255 | BEAVERLODGEL | 001 | 385 | | | | | |
| 255 | BEAVERLODGEL | 001 | 385 | | | | | |
| 255 | BEAVERLODGEL | 001 | 385 | | | | | |
| 257 | BEAVERLODGEL | 001 | 380 | | | | | |
| 257 | BEAVERLODGEL | 001 | 380 | | | | | |
| 257 | BEAVERLODGEL | 001 | 380 | | | | | |
| 259 | BEAVERLODGEL | 001 | 377 | | | | | |
| 259 | BEAVERLODGEL | 001 | 377 | | | | | |
| 261 | BEAVERLODGEL | 001 | 376 | | | | | |
| 261 | BEAVERLODGEL | 001 | 376 | | | | | |
| 261 | BEAVERLODGEL | 001 | 376 | | | | | |
| 261 | BEAVERLODGEL | 001 | 376 | | | | | |
| 261 | BEAVERLODGEL | 001 | 376 | | | | | |
| 261 | BEAVERLODGEL | 001 | 376 | | | | | |
| 261 | BEAVERLODGEL | 001 | 376 | | | | | |
| 265 | BEAVERLODGEL | 001 | 349 | 350 | 351 | | | |
| 268 | BEAVERLODGEL | 001 | 347 | 348 | | | | |
| 271 | BEAVERLODGEL | 001 | 345 | 346 | | | | |
| 274 | BEAVERLODGEL | 001 | 343 | 344 | | | | |
| 277 | BEAVERLODGEL | 001 | 341 | 342 | | | | |
| 281 | BEAVERLODGEL | 001 | 338 | 339 | 340 | | | |
| 285 | BEAVERLODGEL | 001 | 335 | 336 | 337 | | | |
| 289 | BEAVERLODGEL | 001 | 130 | 131 | 132 | | | |
| 289 | BEAVERLODGEL | 001 | 130 | 131 | 132 | | | |
| 289 | BEAVERLODGEL | 001 | 130 | 131 | 132 | | | |
| 291 | BEAVERLODGEL | 001 | 128 | | | | | |
| 295 | BEAVERLODGEL | 001 | 124 | 125 | 126 | | | |
| 300 | BEAVERLODGEL | 001 | 121 | 122 | 123 | | | |
| 304 | BEAVERLODGEL | 001 | 118 | 119 | | | | |
| 309 | BEAVERLODGEL | 001 | 115 | 116 | 117 | | | |
| 309 | BEAVERLODGEL | 001 | 115 | 116 | 117 | | | |
| 312 | BEAVERLODGEL | 001 | 113 | | | | | |
| 316 | BEAVERLODGEL | 001 | 109 | 110 | | | | |
| 320 | BEAVERLODGEL | 001 | 106 | 107 | | | | |
| 326 | BEAVERLODGEL | 001 | 390 | | | | | |
| 326 | BEAVERLODGEL | 001 | 390 | | | | | |
| 326 | BEAVERLODGEL | 001 | 390 | | | | | |
| 326 | BEAVERLODGEL | 001 | 390 | | | | | |

TABLE07-1 - BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | #01. STUDY IDENTIFIER | #704. SAMPLE IDENTIFIER-1 | #704. SAMPLE IDENTIFIER-2 | #704. SAMPLE IDENTIFIER-3 | #704. SAMPLE IDENTIFIER-4 | #704. SAMPLE IDENTIFIER-5 | #704. SAMPLE IDENTIFIER-6 |
|---|---|---|---|---|---|---|---|---|
| 330 | BEAVERLODGEL | 001 | 332 | 333 | 334 | | | |
| 330 | BEAVERLODGEL | 001 | 332 | 333 | 334 | | | |
| 334 | BEAVERLODGEL | 001 | 329 | 330 | 331 | | | |
| 334 | BEAVERLODGEL | 001 | 329 | 330 | 331 | | | |
| 338 | BEAVERLODGEL | 001 | 326 | 327 | 328 | | | |
| 338 | BEAVERLODGEL | 001 | 326 | 327 | 328 | | | |
| 338 | BEAVERLODGEL | 001 | 326 | 327 | 328 | | | |
| 342 | BEAVERLODGEL | 001 | 323 | 324 | 325 | | | |
| 346 | BEAVERLODGEL | 001 | 320 | 321 | 322 | | | |
| 346 | BEAVERLODGEL | 001 | 320 | 321 | 322 | | | |
| 347 | BEAVERLODGEL | 001 | 270 | 271 | | | | |
| 353 | BEAVERLODGEL | 001 | 267 | 268 | 269 | | | |
| 356 | BEAVERLODGEL | 001 | 264 | 265 | | | | |
| 359 | BEAVERLODGEL | 001 | 261 | 262 | | | | |
| 362 | BEAVERLODGEL | 001 | 258 | 259 | | | | |
| 366 | BEAVERLODGEL | 001 | 255 | 256 | 257 | | | |
| 366 | BEAVERLODGEL | 001 | 255 | 256 | 257 | | | |
| 369 | BEAVERLODGEL | 001 | 246 | 247 | | | | |
| 371 | BEAVERLODGEL | 001 | 205 | | | | | |
| 371 | BEAVERLODGEL | 001 | 205 | | | | | |
| 373 | BEAVERLODGEL | 001 | 183 | | | | | |
| 374 | BEAVERLODGEL | 001 | 182 | | | | | |
| 377 | BEAVERLODGEL | 001 | 181 | | | | | |
| 377 | BEAVERLODGEL | 001 | 181 | | | | | |
| 377 | BEAVERLODGEL | 001 | 181 | | | | | |
| 380 | BEAVERLODGEL | 001 | 145 | 147 | | | | |
| 384 | BEAVERLODGEL | 001 | 142 | 143 | 144 | | | |
| 388 | BEAVERLODGEL | 001 | 139 | 140 | 141 | | | |
| 392 | BEAVERLODGEL | 001 | 136 | 137 | 138 | | | |
| 396 | BEAVERLODGEL | 001 | 148 | 149 | 150 | | | |
| 402 | BEAVERLODGEL | 001 | 383 | | | | | |
| 406 | BEAVERLODGEL | 001 | 225 | 226 | 227 | | | |
| 410 | BEAVERLODGEL | 001 | 222 | 223 | 224 | | | |
| 411 | BEAVERLODGEL | 001 | 219 | 220 | | | | |
| 416 | BEAVERLODGEL | 001 | 216 | 217 | | | | |
| 420 | BEAVERLODGEL | 001 | 213 | 214 | 215 | | | |
| 424 | BEAVERLODGEL | 001 | 210 | 211 | 212 | | | |
| 430 | BEAVERLODGEL | 001 | 388 | | | | | |
| 430 | BEAVERLODGEL | 001 | 388 | | | | | |
| 433 | BEAVERLODGEL | 001 | 365 | 366 | | | | |
| 436 | BEAVERLODGEL | 001 | 360 | 361 | | | | |
| 439 | BEAVERLODGEL | 001 | 358 | 359 | | | | |
| 443 | BEAVERLODGEL | 001 | 355 | 356 | 357 | | | |
| 447 | BEAVERLODGEL | 001 | 352 | 353 | 354 | | | |
| 450 | BEAVERLODGEL | 001 | 318 | 319 | | | | |

TABLE07-1 - BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | #01. STUDY IDENTIFIER | #704. SAMPLE IDENTIFIER-1 | #704. SAMPLE IDENTIFIER-2 | #704. SAMPLE IDENTIFIER-3 | #704. SAMPLE IDENTIFIER-4 | #704. SAMPLE IDENTIFIER-5 | #704. SAMPLE IDENTIFIER-6 |
|---|---|---|---|---|---|---|---|---|
| 453 | BEAVERLODGEL | 001 | 316 | 317 | | | | |
| 456 | BEAVERLODGEL | 001 | 314 | 315 | | | | |
| 459 | BEAVERLODGEL | 001 | 312 | 313 | | | | |
| 463 | BEAVERLODGEL | 001 | 309 | 310 | 311 | | | |
| 463 | BEAVERLODGEL | 001 | 309 | 310 | 311 | | | |
| 466 | BEAVERLODGEL | 001 | 298 | 299 | | | | |
| 469 | BEAVERLODGEL | 001 | 282 | 283 | | | | |
| 473 | BEAVERLODGEL | 001 | 279 | 280 | 281 | | | |
| 473 | BEAVERLODGEL | 001 | 279 | 280 | 281 | | | |
| 477 | BEAVERLODGEL | 001 | 276 | 277 | 278 | | | |
| 483 | BEAVERLODGEL | 001 | 375 | | | | | |
| 485 | BEAVERLODGEL | 001 | 374 | | | | | |
| 487 | BEAVERLODGEL | 001 | 369 | | | | | |
| 491 | BEAVERLODGEL | 001 | 362 | 363 | 364 | | | |
| 493 | BEAVERLODGEL | 001 | 289 | | | | | |
| 495 | BEAVERLODGEL | 001 | 288 | | | | | |
| 497 | BEAVERLODGEL | 001 | 287 | | | | | |
| 501 | BEAVERLODGEL | 001 | 252 | 253 | 254 | | | |
| 504 | BEAVERLODGEL | 001 | 249 | 250 | | | | |
| 507 | BEAVERLODGEL | 001 | 243 | 244 | | | | |
| 511 | BEAVERLODGEL | 001 | 240 | 241 | 242 | | | |
| 514 | BEAVERLODGEL | 001 | 237 | 238 | | | | |
| 516 | BEAVERLODGEL | 001 | 235 | 236 | | | | |
| 519 | BEAVERLODGEL | 001 | 232 | 233 | | | | |
| 522 | BEAVERLODGEL | 001 | 228 | 229 | | | | |
| 526 | BEAVERLODGEL | 001 | 190 | 191 | 192 | | | |
| 530 | BEAVERLODGEL | 001 | 187 | 188 | 189 | | | |
| 532 | BEAVERLODGEL | 001 | 185 | | | | | |
| 536 | BEAVERLODGEL | 001 | 103 | 104 | 105 | | | |
| 540 | BEAVERLODGEL | 001 | 100 | 101 | 102 | | | |
| 543 | BEAVERLODGEL | 001 | 97 | 98 | | | | |
| 547 | BEAVERLODGEL | 001 | 94 | 95 | 96 | | | |
| 551 | BEAVERLODGEL | 001 | 91 | 92 | 93 | | | |
| 554 | BEAVERLODGEL | 001 | 88 | 89 | | | | |
| 558 | BEAVERLODGEL | 001 | 82 | 83 | 84 | | | |
| 562 | BEAVERLODGEL | 001 | 79 | 80 | 81 | | | |
| 567 | BEAVERLODGEL | 001 | 203 | 206 | 208 | 209 | | |
| 572 | BEAVERLODGEL | 001 | 397 | 398 | | | | |
| 575 | BEAVERLODGEL | 001 | 381 | 382 | 384 | 387 | 391 | 379 |
| 575 | BEAVERLODGEL | 001 | 378 | 207 | 204 | 202 | | |
| 587 | BEAVERLODGEL | 001 | 402 | | | | | |
| 589 | BEAVERLODGEL | 001 | 399 | | | | | |
| 595 | BEAVERLODGEL | 001 | 200 | | | | | |
| 597 | BEAVERLODGEL | 001 | 197 | | | | | |
| 599 | BEAVERLODGEL | 001 | 196 | | | | | |

TABLE07-1 - BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | #01. STUDY IDENTIFIER | #704. SAMPLE IDENTIFIER-1 | #704. SAMPLE IDENTIFIER-2 | #704. SAMPLE IDENTIFIER-3 | #704. SAMPLE IDENTIFIER-4 | #704. SAMPLE IDENTIFIER-5 | #704. SAMPLE IDENTIFIER-6 |
|---|---|---|---|---|---|---|---|---|
| 605 | BEAVERLODGEL | 001 | 199 | | | | | |
| 608 | BEAVERLODGEL | 001 | 198 | 395 | | | | |
| 610 | BEAVERLODGEL | 001 | 401 | | | | | |
| 616 | BEAVERLODGEL | 001 | 400 | | | | | |
| 651 | BEAVERLODGEL | 001 | 1 | 2 | | | | |
| 652 | BEAVERLODGEL | 001 | 4 | 5 | 6 | | | |

TABLE07-2: BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | #13. GROUP NAME | #14. SPECIES NAME: GENUS | #15. SPECIES NAME: SPECIES | #16. GROUP CODE | #17. SPECIES CODE |
|---|---|---|---|---|---|
| 6 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 7 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 8 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 9 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 12 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 15 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 19 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 24 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 29 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 33 | FISH | CATOSTOMUS | CATOSTOMUS | 1 | 004 |
| 38 | FISH | CATOSTOMUS | CATOSTOMUS | 1 | 004 |
| 42 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 45 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 45 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 45 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 45 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 45 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 45 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 45 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 45 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 45 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 45 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 45 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 45 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 48 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 49 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 50 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 53 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 57 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 61 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 65 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 69 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 73 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 77 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 81 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 85 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 88 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 91 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 94 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 97 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 100 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 103 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 108 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 112 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 116 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |

TABLE07-2: BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | #13. GROUP NAME | #14. SPECIES NAME: GENUS | #15. SPECIES NAME: SPECIES | #16. GROUP CODE | #17. SPECIES CODE |
|---|---|---|---|---|---|
| 120 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 124 | FISH | CATOSTOMUS | CATOSTOMUS | 1 | 004 |
| 129 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 134 | FISH | CATOSTOMUS | CATOSTOMUS | 1 | 004 |
| 139 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 143 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 147 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 151 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 155 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 159 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 162 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 167 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 172 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 177 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 180 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 184 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 188 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 193 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 198 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 203 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 207 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 213 | FISH | CATOSTOMUS | CATOSTOMUS | 1 | 004 |
| 213 | FISH | CATOSTOMUS | CATOSTOMUS | 1 | 004 |
| 213 | FISH | CATOSTOMUS | CATOSTOMUS | 1 | 004 |
| 213 | FISH | CATOSTOMUS | CATOSTOMUS | 1 | 004 |
| 213 | FISH | CATOSTOMUS | CATOSTOMUS | 1 | 004 |
| 213 | FISH | CADASTOMUS | CATOSTOMUS | 1 | 004 |
| 216 | FISH | CATOSTOMUS | COMMERSONI | 1 | 004 |
| 216 | FISH | CATOSTOMUS | COMMERSONI | 1 | 004 |
| 216 | FISH | CATOSTOMUS | COMMERSONI | 1 | 004 |
| 216 | FISH | CATOSTOMUS | COMMERSONI | 1 | 004 |
| 216 | FISH | CATOSTOMUS | COMMERSONI | 1 | 004 |
| 216 | FISH | CATOSTOMUS | COMMERSONI | 1 | 004 |
| 216 | FISH | CATOSTOMUS | COMMERSONI | 1 | 004 |
| 216 | FISH | CATOSTOMUS | COMMERSONI | 1 | 004 |
| 216 | FISH | CATOSTOMUS | COMMERSONI | 1 | 004 |
| 219 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 219 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 219 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 219 | FISH | COREGONUS | CYLINDRACEUS | 1 | 007 |
| 224 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 229 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 233 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 236 | FISH | CATOSTOMUS | CATOSTOMUS | 1 | 004 |

TABLE07-2: BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | #13. GROUP NAME | #14. SPECIES NAME: GENUS | #15. SPECIES NAME: SPECIES | #16. GROUP CODE | #17. SPECIES CODE |
|---|---|---|---|---|---|
| 244 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 247 | FISH | COREGONUS | ARTEDII | 1 | 009 |
| 253 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 253 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 253 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 253 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 255 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 255 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 255 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 255 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 257 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 257 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 257 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 259 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 259 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 261 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 261 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 261 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 261 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 261 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 261 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 261 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 265 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 268 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 271 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 274 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 277 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 281 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 285 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 289 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 289 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 289 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 291 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 295 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 300 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 304 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 309 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 309 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 312 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 316 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 320 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 326 | FISH | COREGONUS | ARTEDII | 1 | 009 |
| 326 | FISH | COREGONUS | ARTEDII | 1 | 009 |
| 326 | FISH | COREGONUS | ARTEDII | 1 | 009 |
| 326 | FISH | COREGONUS | ARTEDII | 1 | 009 |

TABLE07-2: BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | #13. GROUP NAME | #14. SPECIES NAME: GENUS | #15. SPECIES NAME: SPECIES | #16. GROUP CODE | #17. SPECIES CODE |
|---|---|---|---|---|---|
| 330 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 330 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 334 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 334 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 338 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 338 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 338 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 342 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 346 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 346 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 347 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 353 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 356 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 359 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 362 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 366 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 366 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 369 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 371 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 371 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 373 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 374 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 377 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 377 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 377 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 380 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 384 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 388 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 392 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 396 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 402 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 406 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 410 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 411 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 416 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 420 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 424 | FISH | LOTA | LOTA | 1 | 010 |
| 430 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 430 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 433 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 436 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 439 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 443 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 447 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 450 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |

TABLE07-2: BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | #13. GROUP NAME | #14. SPECIES NAME: GENUS | #15. SPECIES NAME: SPECIES | #16. GROUP CODE | #17. SPECIES CODE |
|---|---|---|---|---|---|
| 453 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 456 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 459 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 463 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 463 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 466 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 469 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 473 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 473 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 477 | FISH | SALVELNUS | NAMAYCUSH | 1 | 008 |
| 483 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 485 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 487 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 491 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 493 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 495 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 497 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 501 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 504 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 507 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 511 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 514 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 516 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 519 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 522 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 526 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 530 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 532 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 536 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 540 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 543 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 547 | FISH | SALVELINUS | NAMAYCUSH | 1 | 008 |
| 551 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 554 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 558 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 562 | FISH | COREGONUS | CLUPEAFORMIS | 1 | 001 |
| 567 | FISH | COUESIUS | PLUMBEUS | 1 | 011 |
| 572 | FISH | NOTROPIS | HUDSONIUS | 1 | 012 |
| 575 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 575 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 587 | FISH | PERCOPSIS | OMISCOMAYCUS | 1 | 013 |
| 589 | FISH | PUNGITIUS | PUNGITIUS | 1 | 014 |
| 595 | FISH | NOTROPIS | HUDSONIUS | 1 | 012 |
| 597 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 599 | FISH | COUESIUS | PLUMBEUS | 1 | 011 |

TABLE07-2: BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | #13. GROUP NAME | #14. SPECIES NAME: GENUS | #15. SPECIES NAME: SPECIES | #16. GROUP CODE | #17. SPECIES CODE |
|---|---|---|---|---|---|
| 605 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 608 | FISH | COUESIUS | PLUMBEUS | 1 | 011 |
| 610 | FISH | CATOSTOMUS | CATOSTOMUS | 1 | 004 |
| 616 | FISH | CATOSTOMUS | CATOSTOMUS | 1 | 004 |
| 651 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |
| 652 | FISH | CATOSTOMUS | COMMERSONI | 1 | 003 |

TABLE07-3: BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | #18. AGE | #19. AGE UNIT | #20. WGHT | #21. WGHT UNITS | #22. FORK LENGTH | #07. PRECISION FORK LENGTH | #23. FORK LENGTH UNIT | #24. SEX | #25. SPAWNING CONDITION |
|---|---|---|---|---|---|---|---|---|---|
| 6 | 3 | | 75 | | 19.5 | 1 | | 2 | 2 |
| 7 | 3 | | 75 | | 19.5 | 1 | | 1 | 2 |
| 8 | 3 | | 70 | | 19.0 | 1 | | | |
| 9 | 3 | | 0 | | 19.0 | 1 | | | |
| 12 | 5 | | 175 | | 25.5 | 1 | | 1 | 2 |
| 15 | 5 | | 145 | | 23.5 | 1 | | 2 | 2 |
| 19 | 15 | | 3350 | | 57.0 | 1 | | 1 | 2 |
| 24 | 15 | | 1380 | | 49.0 | 1 | | 1 | 2 |
| 29 | 20 | | 4200 | | 71.5 | 1 | | 2 | 1 |
| 33 | 10 | | 575 | | 36.0 | 1 | | | |
| 38 | 9 | | 1275 | | 44.0 | 1 | | 2 | 2 |
| 42 | 13 | | 2300 | | 58.0 | 1 | | 1 | 2 |
| 45 | 0 | | 25 | | 14.5 | 1 | | | |
| 45 | 0 | | 38 | | 14.5 | 1 | | | |
| 45 | 0 | | 35 | | 13.7 | 1 | | | |
| 45 | 0 | | 55 | | 16.0 | 1 | | | |
| 45 | 0 | | 52 | | 16.5 | 1 | | | |
| 45 | 0 | | 60 | | 16.5 | 1 | | | |
| 45 | 0 | | 62 | | 17.0 | 1 | | | |
| 45 | 0 | | 52 | | 16.7 | 1 | | | |
| 45 | 0 | | 49 | | 15.5 | 1 | | | |
| 45 | 0 | | 62 | | 17.0 | 1 | | | |
| 45 | 0 | | 87 | | 19.5 | 1 | | | |
| 45 | 0 | | 72 | | 18.5 | 1 | | | |
| 48 | 7 | | 350 | | 32.0 | 1 | | 2 | 1 |
| 49 | 8 | | 300 | | 29.5 | 1 | | 2 | 1 |
| 50 | 9 | | 300 | | 30.5 | 1 | | 2 | 1 |
| 53 | 7 | | 375 | | 33.0 | 1 | | 1 | 2 |
| 57 | 10 | | 725 | | 40.0 | 1 | | 2 | 1 |
| 61 | 12 | | 725 | | 41.0 | 1 | | 2 | 1 |
| 65 | 0 | | 375 | | 37.0 | 1 | | 1 | 2 |
| 69 | 9 | | 600 | | 37.0 | 1 | | 1 | 2 |
| 73 | 13 | | 725 | | 40.5 | 1 | | 2 | 1 |
| 77 | 11 | | 350 | | 36.5 | 1 | | 1 | 2 |
| 81 | 9 | | 525 | | 39.0 | 1 | | 1 | 2 |
| 85 | 7 | | 575 | | 37.5 | 1 | | 1 | 2 |
| 88 | 7 | | 425 | | 37.5 | 1 | | 2 | 2 |
| 91 | 6 | | 190 | | 26.5 | 1 | | 2 | 2 |
| 94 | 7 | | 270 | | 31.5 | 1 | | 1 | 2 |
| 97 | 7 | | 260 | | 27.0 | 1 | | 2 | 2 |
| 100 | 8 | | 225 | | 27.5 | 1 | | 1 | 2 |
| 103 | 7 | | 215 | | 27.5 | 1 | | | |
| 108 | 22 | | 3700 | | 69.0 | 1 | | 2 | 1 |
| 112 | 7 | | 575 | | 36.5 | 1 | | 2 | 1 |

TABLE07-3: BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | #18. AGE | #19. AGE UNIT | #20. WGHT | #21. WGHT UNITS | #22. FORK LENGTH | #07. PRECISION FORK LENGTH | #23. FORK LENGTH UNIT | #24. SEX | #25. SPAWNING CONDITION |
|---|---|---|---|---|---|---|---|---|---|
| 116 | 13 | | 750 | | 41.5 | 1 | | 1 | 2 |
| 120 | 12 | | 500 | | 38.0 | 1 | | 1 | 2 |
| 124 | 0 | | 1025 | | 40.0 | 1 | | 2 | 2 |
| 129 | 20 | | 3500 | | 67.5 | 1 | | 1 | 2 |
| 134 | 8 | | 1325 | | 45.5 | 1 | | 2 | 3 |
| 139 | 13 | | 1300 | | 47.5 | 1 | | 1 | 2 |
| 143 | 0 | | 925 | | 40.0 | 1 | | 2 | 2 |
| 147 | 9 | | 400 | | 32.0 | 1 | | 2 | 2 |
| 151 | 8 | | 450 | | 34.0 | 1 | | 1 | 2 |
| 155 | 0 | | 775 | | 37.0 | 1 | | | |
| 159 | 8 | | 375 | | 32.0 | 1 | | 1 | 2 |
| 162 | 8 | | 325 | | 29.5 | 1 | | 2 | 1 |
| 167 | 0 | | 1325 | | 45.2 | 1 | | 2 | 2 |
| 172 | 0 | | 775 | | 37.5 | 1 | | 1 | 2 |
| 177 | 6 | | 1050 | | 42.5 | 1 | | 2 | 3 |
| 180 | 0 | | 425 | | 30.5 | 1 | | 1 | 2 |
| 184 | 7 | | 325 | | 30.0 | 1 | | 1 | 2 |
| 188 | 7 | | 450 | | 33.0 | 1 | | 1 | 2 |
| 193 | 0 | | 700 | | 38.5 | 1 | | 2 | 2 |
| 198 | 6 | | 425 | | 32.5 | 1 | | 2 | 2 |
| 203 | 8 | | 1050 | | 42.0 | 1 | | 2 | 3 |
| 207 | 12 | | 800 | | 39.0 | 1 | | 1 | 2 |
| 213 | 0 | | 109 | | 20.5 | 1 | | | |
| 213 | 0 | | 132 | | 22.0 | 1 | | | |
| 213 | 0 | | 75 | | 18.0 | 1 | | | |
| 213 | 0 | | 70 | | 18.0 | 1 | | | |
| 213 | 0 | | 89 | | 18.5 | 1 | | | |
| 213 | 0 | | 78 | | 18.5 | 1 | | | |
| 216 | 0 | | 275 | | 28.0 | 1 | | 2 | 2 |
| 216 | 0 | | 55 | | 15.5 | 1 | | | |
| 216 | 0 | | 61 | | 15.5 | 1 | | | |
| 216 | 0 | | 52 | | 15.5 | 1 | | | |
| 216 | 0 | | 65 | | 17.0 | 1 | | | |
| 216 | 0 | | 62 | | 16.5 | 1 | | | |
| 216 | 0 | | 70 | | 15.5 | 1 | | | |
| 216 | 0 | | 62 | | 16.0 | 1 | | | |
| 216 | 0 | | 65 | | 16.5 | 1 | | | |
| 216 | 0 | | 62 | | 17.5 | 1 | | | |
| 219 | 4 | | 71 | | 19.0 | 1 | | | |
| 219 | 4 | | 65 | | 19.0 | 1 | | | |
| 219 | 4 | | 75 | | 19.5 | 1 | | | |
| 219 | 4 | | 60 | | 17.5 | 1 | | | |
| 224 | 10 | | 2000 | | 54.0 | 1 | | 1 | 2 |
| 229 | 10 | | 1100 | | 46.0 | 1 | | 1 | 2 |

TABLE07-3: BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | #18. AGE | #19. AGE UNIT | #20. WGHT | #21. WGHT UNITS | #22. FORK LENGTH | #07. PRECISION FORK LENGTH | #23. FORK LENGTH UNIT | #24. SEX | #25. SPAWNING CONDITION |
|---|---|---|---|---|---|---|---|---|---|
| 233 | 17 | | 4000 | | 65.0 | 1 | | 2 | 1 |
| 236 | 2 | | 275 | | 28.0 | 1 | | 2 | 2 |
| 244 | 5 | | 500 | | 33.0 | 1 | | 2 | 1 |
| 247 | 0 | | 52 | | 17.5 | 1 | | 2 | 1 |
| 253 | 0 | | 100 | | 21.5 | 1 | | 1 | 2 |
| 253 | 0 | | 98 | | 21.5 | 1 | | 2 | 2 |
| 253 | 0 | | 69 | | 17.0 | 1 | | 2 | 2 |
| 253 | 0 | | 48 | | 15.5 | 1 | | | |
| 253 | 0 | | 50 | | 16.5 | 1 | | | |
| 255 | 0 | | 59 | | 18.0 | 1 | | | |
| 255 | 0 | | 42 | | 16.0 | 1 | | | |
| 255 | 0 | | 65 | | 18.0 | 1 | | 2 | 2 |
| 257 | 0 | | 132 | | 23.5 | 1 | | 2 | 2 |
| 257 | 0 | | 130 | | 23.5 | 1 | | 2 | 2 |
| 257 | 0 | | 142 | | 24.0 | 1 | | 1 | 2 |
| 259 | 0 | | 235 | | 26.5 | 1 | | 2 | 2 |
| 259 | 0 | | 172 | | 24.5 | 1 | | 2 | 2 |
| 261 | 0 | | 132 | | 23.5 | 1 | | 2 | 2 |
| 261 | 0 | | 132 | | 22.5 | 1 | | 2 | 2 |
| 261 | 0 | | 120 | | 22.6 | 1 | | 1 | 2 |
| 261 | 0 | | 132 | | 23.5 | 1 | | 2 | 2 |
| 261 | 0 | | 130 | | 23.5 | 1 | | 2 | 2 |
| 261 | 0 | | 142 | | 24.0 | 1 | | 1 | 2 |
| 261 | 0 | | 112 | | 22.5 | 1 | | | |
| 265 | 7 | | 1025 | | 40.5 | 1 | | 2 | 1 |
| 268 | 0 | | 610 | | 35.0 | 1 | | 2 | 2 |
| 271 | 13 | | 550 | | 35.0 | 1 | | 2 | 2 |
| 274 | 0 | | 525 | | 33.5 | 1 | | 2 | 2 |
| 277 | 14 | | 625 | | 37.0 | 1 | | 2 | 2 |
| 281 | 7 | | 1325 | | 42.5 | 1 | | 2 | 1 |
| 285 | 7 | | 950 | | 42.0 | 1 | | 1 | 2 |
| 289 | 4 | | 230 | | 28.5 | 1 | | 1 | 2 |
| 289 | 4 | | 225 | | 27.5 | 1 | | 2 | 1 |
| 289 | 5 | | 205 | | 27.5 | 1 | | 1 | 2 |
| 291 | 7 | | 550 | | 33.5 | 1 | | 1 | 2 |
| 295 | 9 | | 1525 | | 47.5 | 1 | | 2 | 1 |
| 300 | 7 | | 1000 | | 41.5 | 1 | | 1 | 2 |
| 304 | 8 | | 800 | | 37.5 | 1 | | 2 | 1 |
| 309 | 0 | | 325 | | 30.0 | 1 | | 1 | 2 |
| 309 | 0 | | 325 | | 29.5 | 1 | | 1 | 2 |
| 312 | 6 | | 350 | | 31.5 | 1 | | 2 | 1 |
| 316 | 8 | | 425 | | 33.5 | 1 | | 1 | 2 |
| 320 | 0 | | 375 | | 32.5 | 1 | | 2 | 2 |
| 326 | 0 | | 650 | | 36.5 | 1 | | 1 | 2 |

TABLE07-3: BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | #18. AGE | #19. AGE UNIT | #20. WGHT | #21. WGHT UNITS | #22. FORK LENGTH | #07. PRECISION FORK LENGTH | #23. FORK LENGTH UNIT | #24. SEX | #25. SPAWNING CONDITION |
|---|---|---|---|---|---|---|---|---|---|
| 326 | 0 | | 51 | | 17.5 | 1 | | 2 | 2 |
| 326 | 0 | | 50 | | 17.5 | 1 | | 2 | 2 |
| 326 | 0 | | 52 | | 17.0 | 1 | | | |
| 330 | 7 | | 600 | | 36.0 | 1 | | 1 | 2 |
| 330 | 8 | | 510 | | 35.0 | 1 | | 1 | 2 |
| 334 | 4 | | 625 | | 35.5 | 1 | | 2 | 1 |
| 334 | 6 | | 350 | | 35.5 | 1 | | 1 | 2 |
| 338 | 4 | | 500 | | 33.5 | 1 | | 1 | 2 |
| 338 | 5 | | 430 | | 34.3 | 1 | | 1 | 2 |
| 338 | 7 | | 410 | | 33.5 | 1 | | 2 | 1 |
| 342 | 8 | | 775 | | 50.0 | 1 | | 2 | 1 |
| 346 | 4 | | 450 | | 32.5 | 1 | | 2 | 1 |
| 346 | 4 | | 410 | | 31.5 | 1 | | 2 | 2 |
| 347 | 0 | | 1350 | | 49.0 | 1 | | 1 | 2 |
| 353 | 0 | | 2150 | | 53.5 | 1 | | 1 | 2 |
| 356 | 5 | | 500 | | 33.5 | 1 | | 1 | 2 |
| 359 | 0 | | 1525 | | 49.5 | 1 | | 1 | 2 |
| 362 | 8 | | 650 | | 36.5 | 1 | | 1 | 2 |
| 366 | 9 | | 650 | | 37.0 | 1 | | 1 | 2 |
| 366 | 10 | | 650 | | 37.0 | 1 | | 2 | 1 |
| 369 | 8 | | 980 | | 40.0 | 1 | | 2 | 1 |
| 371 | 3 | | 163 | | 25.3 | 1 | | 1 | 2 |
| 371 | 3 | | 300 | | 28.5 | 1 | | 2 | 2 |
| 373 | 0 | | 425 | | 33.7 | 1 | | 2 | 2 |
| 374 | 0 | | 375 | | 32.0 | 1 | | 2 | 2 |
| 377 | 0 | | 170 | | 24.5 | 1 | | 2 | 2 |
| 377 | 0 | | 88 | | 21.0 | 1 | | 2 | 2 |
| 377 | 0 | | 121 | | 22.3 | 1 | | 2 | 2 |
| 380 | 12 | | 775 | | 38.0 | 1 | | 2 | 2 |
| 384 | 8 | | 750 | | 35.0 | 1 | | 1 | 2 |
| 388 | 8 | | 890 | | 40.0 | 1 | | 2 | 1 |
| 392 | 8 | | 925 | | 39.5 | 1 | | 1 | 2 |
| 396 | 0 | | 5150 | | 68.5 | 1 | | 1 | 2 |
| 402 | 0 | | 375 | | 30.5 | 1 | | 1 | 2 |
| 406 | 8 | | 730 | | 40.0 | 1 | | 2 | 1 |
| 410 | 10 | | 600 | | 35.5 | 1 | | 2 | 1 |
| 411 | 9 | | 650 | | 34.5 | 1 | | 2 | 1 |
| 416 | 9 | | 730 | | 38.0 | 1 | | 2 | 2 |
| 420 | 9 | | 600 | | 35.5 | 1 | | 2 | 1 |
| 424 | 0 | | 2300 | | 68.0 | 1 | | 1 | 2 |
| 430 | 0 | | 125 | | 24.5 | 1 | | 2 | 2 |
| 430 | 5 | | 113 | | 21.5 | 1 | | 2 | 2 |
| 433 | 10 | | 625 | | 35.0 | 1 | | 2 | 1 |
| 436 | 8 | | 625 | | 39.5 | 1 | | 2 | 1 |

TABLE07-3: BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | #18. AGE | #19. AGE UNIT | #20. WGHT | #21. WGHT UNITS | #22. FORK LENGTH | #07. PRECISION FORK LENGTH | #23. FORK LENGTH UNIT | #24. SEX | #25. SPAWNING CONDITION |
|---|---|---|---|---|---|---|---|---|---|
| 439 | 7 | | 575 | | 34.5 | 1 | | 2 | 1 |
| 443 | 8 | | 850 | | 39.5 | 1 | | 2 | 1 |
| 447 | 18 | | 3400 | | 59.5 | 1 | | 2 | 1 |
| 450 | 7 | | 375 | | 34.5 | 1 | | 1 | 2 |
| 453 | 6 | | 275 | | 32.5 | 1 | | 1 | 2 |
| 456 | 7 | | 300 | | 33.0 | 1 | | 1 | 2 |
| 459 | 5 | | 325 | | 32.5 | 1 | | 2 | 1 |
| 463 | 5 | | 350 | | 34.0 | 1 | | 2 | 1 |
| 463 | 5 | | 420 | | 34.0 | 1 | | 2 | 1 |
| 466 | 9 | | 325 | | 33.5 | 1 | | 2 | 1 |
| 469 | 6 | | 400 | | 35.0 | 1 | | 1 | 2 |
| 473 | 6 | | 400 | | 35.5 | 1 | | 1 | 2 |
| 473 | 7 | | 400 | | 35.0 | 1 | | 2 | 1 |
| 477 | 13 | | 3050 | | 62.0 | 1 | | 2 | 1 |
| 483 | 8 | | 460 | | 35.5 | 1 | | 1 | 2 |
| 485 | 8 | | 475 | | 33.0 | 1 | | 2 | 1 |
| 487 | 6 | | 425 | | 33.0 | 1 | | 2 | 1 |
| 491 | 13 | | 2600 | | 55.0 | 1 | | 1 | 2 |
| 493 | 9 | | 600 | | 35.5 | 1 | | 1 | 2 |
| 495 | 8 | | 425 | | 32.5 | 1 | | 2 | 1 |
| 497 | 8 | | 550 | | 35.5 | 1 | | 2 | 1 |
| 501 | 7 | | 600 | | 36.5 | 1 | | 2 | 1 |
| 504 | 7 | | 575 | | 34.0 | 1 | | 1 | 2 |
| 507 | 12 | | 775 | | 39.5 | 1 | | 2 | 1 |
| 511 | 13 | | 875 | | 39.5 | 1 | | 2 | 1 |
| 514 | 8 | | 600 | | 35.0 | 1 | | 1 | 2 |
| 516 | 7 | | 350 | | 30.5 | 1 | | 1 | 2 |
| 519 | 11 | | 625 | | 36.5 | 1 | | 2 | 1 |
| 522 | 5 | | 475 | | 34.0 | 1 | | 1 | 2 |
| 526 | 14 | | 1800 | | 51.5 | 1 | | 1 | 2 |
| 530 | 12 | | 875 | | 40.5 | 1 | | 2 | 1 |
| 532 | 6 | | 375 | | 32.5 | 1 | | 1 | 2 |
| 536 | 12 | | 1625 | | 48.5 | 1 | | 1 | 2 |
| 540 | 9 | | 1575 | | 49.9 | 1 | | 1 | 2 |
| 543 | 8 | | 475 | | 34.5 | 1 | | 2 | 2 |
| 547 | 20 | | 2800 | | 54.0 | 1 | | 1 | 2 |
| 551 | 6 | | 480 | | 33.0 | 1 | | 1 | 2 |
| 554 | 10 | | 700 | | 38.0 | 1 | | 2 | 1 |
| 558 | 8 | | 650 | | 36.5 | 1 | | 2 | 1 |
| 562 | 10 | | 725 | | 37.0 | 1 | | 2 | 1 |
| 567 | 0 | | 0 | | 0.0 | 1 | | | |
| 572 | 0 | | 0 | | 0.0 | 1 | | | |
| 575 | 0 | | 0 | | 0.0 | 1 | | | |
| 575 | 0 | | 0 | | 0.0 | 1 | | | |

TABLE07-3: BIOLOGICAL INFORMATION (SAMPLE)

| CODING FORM PAGE | #18. AGE | #19. AGE UNIT | #20. WGHT | #21. WGHT UNITS | #22. FORK LENGTH | #07. PRECISION FORK LENGTH | #23. FORK LENGTH UNIT | #24. SEX | #25. SPAWNING CONDITION |
|---|---|---|---|---|---|---|---|---|---|
| 587 | 0 | | 0 | | 0.0 | 1 | | | |
| 589 | 0 | | 0 | | 0.0 | 1 | | | |
| 595 | 0 | | 0 | | 0.0 | 1 | | | |
| 597 | 0 | | 0 | | 0.0 | 1 | | | |
| 599 | 0 | | 0 | | 0.0 | 1 | | | |
| 605 | 0 | | 0 | | 0.0 | 1 | | | |
| 608 | 0 | | 0 | | 0.0 | 1 | | | |
| 610 | 0 | | 0 | | 0.0 | 1 | | | |
| 616 | 0 | | 95 | | 20.0 | 1 | | | |
| 651 | 12 | | 800 | | 39.0 | 1 | | 1 | 2 |
| 652 | 8 | | 1050 | | 42.0 | 1 | | 2 | 3 |

## APPENDIX N

## FILE STRUCTURE AND DATA LISTING FOR TABLE06.

```
. DISPLAY STRUCY RT__TURE
STRUCTURE FOR FILE:  C:TABLEOB .DBF
NUMBER OF RECORDS:   01015
DATE OF LAST UPDATE: 05/21/84
PRIMARY USE DATABASE
FLD       NAME       TYPE WIDTH   DEC
001     CFPAGE        N    007
002     TLMGSST01     C    012
003     SMPLID704     C    007
004     STDYID:03     C    003
005     SRCSMP:04     C    003
006     LABID1002     C    003
007     SRCCDE:02     C    003
008     MSRMT1001     N    006
009     SMPLTR713     C    003
010     SMPLTR:05     C    003
011     MTRAL1101     C    020
012     LSTHN1102     C    002
013     VALUE1102     N    010    005
014     PRCSN1102     C    001
015     UNITS1103     N    002
016     MTTYP1102     C    001
017     QULTY1104     C    004    001
** TOTAL **            00091
.
```

```
M=1,L=54,N=137
Y
TABLE08-1: MEASUREMENT RESULTS
N
N
7,CFPAGE
CODING FORM PAGE
15,TLNGSST01
1. TAILINGS SITE IDENTIFIER
11,SMPLID704
704. SAMPLE IDENTIFIER
11,STDYID:03
*03. STUDY IDENTIFIER
7,SRCSMP:04
*04. SRC'S SAMPLE TYPE
11,LABID1002
1002. LAB IDENTIFIER
12,MSRMT1001
1001. MEASUREMENT TYPE
10,SMPLTR:05
*05. SAMPLE TREATMENT (SRC, FIELD)
10,SMPLTR713
713. SAMPLE TREATMENT
20,MTRAL1101
1101. MATERIAL
```

```
M=1,L=54,W=137
Y
TABLE08-2: MEASUREMENT RESULTS
N
N
7,CFPAGE
CODING FORM PAGE
20,MTRAL1101
1101. MATERIAL
5,LSTHN1102
*06. LESS THAN
12,VALUE1102
1102. VALUE
10,PRCSN1102
*07. PRECISION
7,UNITS1103
1103. UNITS
7,WTTYP1102
*08. WEIGHT TYPE
8,QULTY1104
1104. QUALITY
```

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | #03. STUDY IDENTIFIER | #04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | #05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 5 | BEAVERLODGEL | 372 | 001 | 108 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 5 | BEAVERLODGEL | 372 | 001 | 108 | | 82612 | 101 | | LEAD-210, TOTAL |
| 5 | BEAVERLODGEL | 372 | 001 | 108 | | 92601 | 101 | | URANIUM, TOTAL |
| 11 | BEAVERLODGEL | 371 | 001 | 106 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 11 | BEAVERLODGEL | 371 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 11 | BEAVERLODGEL | 371 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 14 | BEAVERLODGEL | 370 | 001 | 106 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 14 | BEAVERLODGEL | 370 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 14 | BEAVERLODGEL | 370 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 17 | BEAVERLODGEL | 306 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 17 | BEAVERLODGEL | 306 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 17 | BEAVERLODGEL | 306 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 18 | BEAVERLODGEL | 307 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 18 | BEAVERLODGEL | 307 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 18 | BEAVERLODGEL | 307 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 21 | BEAVERLODGEL | 303 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 21 | BEAVERLODGEL | 303 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 21 | BEAVERLODGEL | 303 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 22 | BEAVERLODGEL | 304 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 22 | BEAVERLODGEL | 304 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 22 | BEAVERLODGEL | 304 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 23 | BEAVERLODGEL | 305 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 23 | BEAVERLODGEL | 305 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 23 | BEAVERLODGEL | 305 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 26 | BEAVERLODGEL | 300 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 26 | BEAVERLODGEL | 300 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 26 | BEAVERLODGEL | 300 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 27 | BEAVERLODGEL | 301 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 27 | BEAVERLODGEL | 301 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 27 | BEAVERLODGEL | 301 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 28 | BEAVERLODGEL | 302 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 28 | BEAVERLODGEL | 302 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 28 | BEAVERLODGEL | 302 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 31 | BEAVERLODGEL | 296 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 31 | BEAVERLODGEL | 296 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 31 | BEAVERLODGEL | 296 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 32 | BEAVERLODGEL | 297 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 32 | BEAVERLODGEL | 297 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 32 | BEAVERLODGEL | 297 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 35 | BEAVERLODGEL | 293 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 35 | BEAVERLODGEL | 293 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 35 | BEAVERLODGEL | 293 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 36 | BEAVERLODGEL | 294 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |

TABLE0B-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | #03. STUDY IDENTIFIER | #04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | #05. SAMPLE TREATMENT (SRC. FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 36 | BEAVERLODGEL | 294 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 36 | BEAVERLODGEL | 294 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 37 | BEAVERLODGEL | 295 | 001 | 103 | | 86613 101 | | | RADIUM-226, TOTAL |
| 37 | BEAVERLODGEL | 295 | 001 | 103 | | 82612 101 | | | LEAD-210, TOTAL |
| 37 | BEAVERLODGEL | 295 | 001 | 103 | | 92601 101 | | | URANIUM, TOTAL |
| 40 | BEAVERLODGEL | 290 | 001 | 104 | | 86613 101 | | | RADIUM-226, TOTAL |
| 40 | BEAVERLODGEL | 290 | 001 | 104 | | 82612 101 | | | LEAD-210, TOTAL |
| 40 | BEAVERLODGEL | 290 | 001 | 104 | | 92601 101 | | | URANIUM, TOTAL |
| 41 | BEAVERLODGEL | 291 | 001 | 102 | | 86613 101 | | | RADIUM-226, TOTAL |
| 41 | BEAVERLODGEL | 291 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 41 | BEAVERLODGEL | 291 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 44 | BEAVERLODGEL | 275 | 001 | 108 | | 86613 101 | | | RADIUM-226, TOTAL |
| 44 | BEAVERLODGEL | 275 | 001 | 108 | | 82612 101 | | | LEAD-210, TOTAL |
| 44 | BEAVERLODGEL | 275 | 001 | 108 | | 92601 101 | | | URANIUM, TOTAL |
| 47 | BEAVERLODGEL | 274 | 001 | 108 | | 86613 101 | | | RADIUM-226, TOTAL |
| 47 | BEAVERLODGEL | 274 | 001 | 108 | | 82612 101 | | | LEAD-210, TOTAL |
| 47 | BEAVERLODGEL | 274 | 001 | 108 | | 92601 101 | | | URANIUM, TOTAL |
| 52 | BEAVERLODGEL | 273 | 001 | 106 | | 86613 101 | | | RADIUM-226, TOTAL |
| 52 | BEAVERLODGEL | 273 | 001 | 106 | | 82612 101 | | | LEAD-210, TOTAL |
| 52 | BEAVERLODGEL | 273 | 001 | 106 | | 92601 101 | | | URANIUM, TOTAL |
| 55 | BEAVERLODGEL | 178 | 001 | 104 | | 86613 101 | | | RADIUM-226, TOTAL |
| 55 | BEAVERLODGEL | 178 | 001 | 104 | | 82612 101 | | | LEAD-210, TOTAL |
| 55 | BEAVERLODGEL | 178 | 001 | 104 | | 92601 101 | | | URANIUM, TOTAL |
| 56 | BEAVERLODGEL | 179 | 001 | 102 | | 86613 101 | | | RADIUM-226, TOTAL |
| 56 | BEAVERLODGEL | 179 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 56 | BEAVERLODGEL | 179 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 59 | BEAVERLODGEL | 175 | 001 | 104 | | 86613 101 | | | RADIUM-226, TOTAL |
| 59 | BEAVERLODGEL | 175 | 001 | 104 | | 82612 101 | | | LEAD-210, TOTAL |
| 59 | BEAVERLODGEL | 175 | 001 | 104 | | 92601 101 | | | URANIUM, TOTAL |
| 60 | BEAVERLODGEL | 176 | 001 | 102 | | 86613 101 | | | RADIUM-226, TOTAL |
| 60 | BEAVERLODGEL | 176 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 60 | BEAVERLODGEL | 176 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 63 | BEAVERLODGEL | 172 | 001 | 104 | | 86613 101 | | | RADIUM-226, TOTAL |
| 63 | BEAVERLODGEL | 172 | 001 | 104 | | 82612 101 | | | LEAD-210, TOTAL |
| 63 | BEAVERLODGEL | 172 | 001 | 104 | | 92601 101 | | | URANIUM, TOTAL |
| 64 | BEAVERLODGEL | 173 | 001 | 102 | | 86613 101 | | | RADIUM-226, TOTAL |
| 64 | BEAVERLODGEL | 173 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 64 | BEAVERLODGEL | 173 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 67 | BEAVERLODGEL | 169 | 001 | 104 | | 86613 101 | | | RADIUM-226, TOTAL |
| 67 | BEAVERLODGEL | 169 | 001 | 104 | | 82612 101 | | | LEAD-210, TOTAL |
| 67 | BEAVERLODGEL | 169 | 001 | 104 | | 92601 101 | | | URANIUM, TOTAL |
| 68 | BEAVERLODGEL | 170 | 001 | 102 | | 86613 101 | | | RADIUM-226, TOTAL |
| 68 | BEAVERLODGEL | 170 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | 703. STUDY IDENTIFIER | 804. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | 805. SAMPLE TREATMENT (SPC. FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 68 | BEAVERLODGEL | 170 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 71 | BEAVERLODGEL | 166 | 001 | 104 | | 88613 101 | | | RADIUM-226, TOTAL |
| 71 | BEAVERLODGEL | 166 | 001 | 104 | | 82612 101 | | | LEAD-210, TOTAL |
| 71 | BEAVERLODGEL | 166 | 001 | 104 | | 92601 101 | | | URANIUM, TOTAL |
| 72 | BEAVERLODGEL | 167 | 001 | 102 | | 88613 101 | | | RADIUM-226, TOTAL |
| 72 | BEAVERLODGEL | 167 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 72 | BEAVERLODGEL | 167 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 75 | BEAVERLODGEL | 163 | 001 | 104 | | 88613 101 | | | RADIUM-226, TOTAL |
| 75 | BEAVERLODGEL | 163 | 001 | 104 | | 82612 101 | | | LEAD-210, TOTAL |
| 75 | BEAVERLODGEL | 163 | 001 | 104 | | 92601 101 | | | URANIUM, TOTAL |
| 76 | BEAVERLODGEL | 164 | 001 | 102 | | 88613 101 | | | RADIUM-226, TOTAL |
| 76 | BEAVERLODGEL | 164 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 76 | BEAVERLODGEL | 164 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 79 | BEAVERLODGEL | 160 | 001 | 104 | | 88613 101 | | | RADIUM-226, TOTAL |
| 79 | BEAVERLODGEL | 160 | 001 | 104 | | 82612 101 | | | LEAD-210, TOTAL |
| 79 | BEAVERLODGEL | 160 | 001 | 104 | | 92601 101 | | | URANIUM, TOTAL |
| 80 | BEAVERLODGEL | 161 | 001 | 102 | | 88613 101 | | | RADIUM-226, TOTAL |
| 80 | BEAVERLODGEL | 161 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 80 | BEAVERLODGEL | 161 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 83 | BEAVERLODGEL | 157 | 001 | 104 | | 88613 101 | | | RADIUM-226, TOTAL |
| 83 | BEAVERLODGEL | 157 | 001 | 104 | | 82612 101 | | | LEAD-210, TOTAL |
| 83 | BEAVERLODGEL | 157 | 001 | 104 | | 92601 101 | | | URANIUM, TOTAL |
| 84 | BEAVERLODGEL | 158 | 001 | 102 | | 88613 101 | | | RADIUM-226, TOTAL |
| 84 | BEAVERLODGEL | 158 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 84 | BEAVER[illegible] | 158 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 87 | [illegible] | 156 | 001 | 106 | | 88613 101 | | | RADIUM-226, TOTAL |
| [illegible] | [illegible] | 156 | 001 | 106 | | 82612 101 | | | LEAD-210, TOTAL |
| [illegible] | [illegible] | 156 | 001 | 106 | | 92601 101 | | | URANIUM, TOTAL |
| [illegible] | [illegible] | 155 | 001 | 106 | | 88613 101 | | | RADIUM-226, TOTAL |
| 90 | BEAVERLODGEL | 155 | 001 | 106 | | 82612 101 | | | LEAD-210, TOTAL |
| 90 | BEAVERLODGEL | 155 | 001 | 106 | | 92601 101 | | | URANIUM, TOTAL |
| 93 | BEAVERLODGEL | 154 | 001 | 106 | | 88613 101 | | | RADIUM-226, TOTAL |
| 93 | BEAVERLODGEL | 154 | 001 | 106 | | 82612 101 | | | LEAD-210, TOTAL |
| 93 | BEAVERLODGEL | 154 | 001 | 106 | | 92601 101 | | | URANIUM, TOTAL |
| 96 | BEAVERLODGEL | 153 | 001 | 106 | | 88613 101 | | | RADIUM-226, TOTAL |
| 96 | BEAVERLODGEL | 153 | 001 | 106 | | 82612 101 | | | LEAD-210, TOTAL |
| 96 | BEAVERLODGEL | 153 | 001 | 106 | | 92601 101 | | | URANIUM, TOTAL |
| 99 | BEAVERLODGEL | 152 | 001 | 106 | | 88613 101 | | | RADIUM-226, TOTAL |
| 99 | BEAVERLODGEL | 152 | 001 | 106 | | 82612 101 | | | LEAD-210, TOTAL |
| 99 | BEAVERLODGEL | 152 | 001 | 106 | | 92601 101 | | | URANIUM, TOTAL |
| 102 | BEAVERLODGEL | 151 | 001 | 106 | | 88613 101 | | | RADIUM-226, TOTAL |
| 102 | BEAVERLODGEL | 151 | 001 | 106 | | 82612 101 | | | LEAD-210, TOTAL |
| 102 | BEAVERLODGEL | 151 | 001 | 106 | | 92601 101 | | | URANIUM, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | 403. STUDY IDENTIFIER | 404. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | 405. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 105 | BEAVERLODGEL | 133 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 105 | BEAVERLODGEL | 133 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 105 | BEAVERLODGEL | 133 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 106 | BEAVERLODGEL | 134 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 106 | BEAVERLODGEL | 134 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 106 | BEAVERLODGEL | 134 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 107 | BEAVERLODGEL | 135 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 107 | BEAVERLODGEL | 135 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 110 | BEAVERLODGEL | 85 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 110 | BEAVERLODGEL | 85 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 110 | BEAVERLODGEL | 85 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 111 | BEAVERLODGEL | 86 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 111 | BEAVERLODGEL | 86 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 111 | BEAVERLODGEL | 86 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 114 | BEAVERLODGEL | 76 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 114 | BEAVERLODGEL | 76 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 114 | BEAVERLODGEL | 76 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 115 | BEAVERLODGEL | 77 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 115 | BEAVERLODGEL | 77 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 115 | BEAVERLODGEL | 77 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 118 | BEAVERLODGEL | 73 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 118 | BEAVERLODGEL | 73 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 118 | BEAVERLODGEL | 73 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 119 | BEAVERLODGEL | 74 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 119 | BEAVERLODGEL | 74 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 119 | BEAVERLODGEL | 74 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 122 | BEAVERLODGEL | 70 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 122 | BEAVERLODGEL | 70 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 122 | BEAVERLODGEL | 70 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 123 | BEAVERLODGEL | 71 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 123 | BEAVERLODGEL | 71 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 123 | BEAVERLODGEL | 71 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 126 | BEAVERLODGEL | 67 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 126 | BEAVERLODGEL | 67 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 126 | BEAVERLODGEL | 67 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 127 | BEAVERLODGEL | 68 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 127 | BEAVERLODGEL | 68 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 128 | BEAVERLODGEL | 69 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 128 | BEAVERLODGEL | 69 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 128 | BEAVERLODGEL | 69 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 131 | BEAVERLODGEL | 55 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 131 | BEAVERLODGEL | 55 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 131 | BEAVERLODGEL | 55 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | ⌀03. STUDY IDENTIFIER | ⌀04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | ⌀03. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 132 | BEAVERLODGE | 56 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 132 | BEAVERLODGE | 56 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 132 | BEAVERLODGE | 56 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 133 | BEAVERLODGE | 57 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 133 | BEAVERLODGE | 57 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 133 | BEAVERLODGE | 57 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 136 | BEAVERLODGE | 49 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 136 | BEAVERLODGE | 49 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 136 | BEAVERLODGE | 49 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 137 | BEAVERLODGE | 50 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 137 | BEAVERLODGE | 50 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 137 | BEAVERLODGE | 50 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 138 | BEAVERLODGE | 51 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 138 | BEAVERLODGE | 51 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 138 | BEAVERLODGE | 51 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 141 | BEAVERLODGE | 46 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 141 | BEAVERLODGE | 46 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 141 | BEAVERLODGE | 46 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 142 | BEAVERLODGE | 48 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 142 | BEAVERLODGE | 48 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 142 | BEAVERLODGE | 48 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 145 | BEAVERLODGE | 43 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 145 | BEAVERLODGE | 43 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 145 | BEAVERLODGE | 43 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 146 | BEAVERLODGE | 44 | 001 | 105 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 146 | BEAVERLODGE | 44 | 001 | 105 | | 82612 | 101 | | LEAD-210, TOTAL |
| 146 | BEAVERLODGE | 44 | 001 | 105 | | 92601 | 101 | | URANIUM, TOTAL |
| 149 | BEAVERLODGE | 40 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 149 | BEAVERLODGE | 40 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 149 | BEAVERLODGE | 40 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 150 | BEAVERLODGE | 42 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 150 | BEAVERLODGE | 42 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 150 | BEAVERLODGE | 42 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 153 | BEAVERLODGE | 37 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 153 | BEAVERLODGE | 37 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 153 | BEAVERLODGE | 37 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 154 | BEAVERLODGE | 39 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 154 | BEAVERLODGE | 39 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 154 | BEAVERLODGE | 39 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 157 | BEAVERLODGE | 35 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 157 | BEAVERLODGE | 35 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 157 | BEAVERLODGE | 35 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 158 | BEAVERLODGE | 36 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |

TABLE09-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | 403. STUDY IDENTIFIER | 404. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | 405. SAMPLE TREATMENT (SRC. FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 158 | BEAVERLODGEL | 36 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 158 | BEAVERLODGEL | 36 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 161 | BEAVERLODGEL | 32 | 001 | 106 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 161 | BEAVERLODGEL | 32 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 161 | BEAVERLODGEL | 32 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 164 | BEAVERLODGEL | 28 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 164 | BEAVERLODGEL | 28 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 164 | BEAVERLODGEL | 28 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 165 | BEAVERLODGEL | 29 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 165 | BEAVERLODGEL | 29 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 165 | BEAVERLODGEL | 29 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 166 | BEAVERLODGEL | 30 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 166 | BEAVERLODGEL | 30 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 168 | BEAVERLODGEL | 25 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 169 | BEAVERLODGEL | 25 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 169 | BEAVERLODGEL | 25 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 169 | BEAVERLODGEL | 25 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 170 | BEAVERLODGEL | 26 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 170 | BEAVERLODGEL | 26 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 171 | BEAVERLODGEL | 27 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 171 | BEAVERLODGEL | 27 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 171 | BEAVERLODGEL | 27 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 174 | BEAVERLODGEL | 22 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 174 | BEAVERLODGEL | 22 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 174 | BEAVERLODGEL | 22 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 175 | BEAVERLODGEL | 23 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 175 | BEAVERLODGEL | 23 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 175 | BEAVERLODGEL | 23 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 176 | BEAVERLODGEL | 24 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 176 | BEAVERLODGEL | 24 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 176 | BEAVERLODGEL | 24 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 179 | BEAVERLODGEL | 20 | 001 | 106 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 179 | BEAVERLODGEL | 20 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 179 | BEAVERLODGEL | 20 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 182 | BEAVERLODGEL | 16 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 182 | BEAVERLODGEL | 16 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 182 | BEAVERLODGEL | 16 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 183 | BEAVERLODGEL | 17 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 183 | BEAVERLODGEL | 17 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 183 | BEAVERLODGEL | 17 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 186 | BEAVERLODGEL | 13 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 186 | BEAVERLODGEL | 13 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 186 | BEAVERLODGEL | 13 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |

TABLE00-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | #03. STUDY IDENTIFIER | #04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | #05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 187 | BEAVERLODGE1 | 14 | 001 | 102 | | 88613 101 | | | RADIUM-226, TOTAL |
| 187 | BEAVERLODGE1 | 14 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 187 | BEAVERLODGE1 | 14 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 190 | BEAVERLODGE1 | 10 | 001 | 101 | | 88613 101 | | | RADIUM-226, TOTAL |
| 190 | BEAVERLODGE1 | 10 | 001 | 101 | | 82612 101 | | | LEAD-210, TOTAL |
| 190 | BEAVERLODGE1 | 10 | 001 | 101 | | 92601 101 | | | URANIUM, TOTAL |
| 191 | BEAVERLODGE1 | 11 | 001 | 102 | | 88613 101 | | | RADIUM-226, TOTAL |
| 191 | BEAVERLODGE1 | 11 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 191 | BEAVERLODGE1 | 11 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 192 | BEAVERLODGE1 | 12 | 001 | 103 | | 88613 101 | | | RADIUM-226, TOTAL |
| 192 | BEAVERLODGE1 | 12 | 001 | 103 | | 82612 101 | | | LEAD-210, TOTAL |
| 192 | BEAVERLODGE1 | 12 | 001 | 103 | | 92601 101 | | | URANIUM, TOTAL |
| 193 | BEAVERLODGE1 | 7 | 001 | 101 | | 88613 101 | | | RADIUM-226, TOTAL |
| 193 | BEAVERLODGE1 | 7 | 001 | 101 | | 82612 101 | | | LEAD-210, TOTAL |
| 193 | BEAVERLODGE1 | 7 | 001 | 101 | | 92601 101 | | | URANIUM, TOTAL |
| 196 | BEAVERLODGE1 | 8 | 001 | 102 | | 88613 101 | | | RADIUM-226, TOTAL |
| 196 | BEAVERLODGE1 | 8 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 196 | BEAVERLODGE1 | 8 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 197 | BEAVERLODGE1 | 9 | 001 | 103 | | 88613 101 | | | RADIUM-226, TOTAL |
| 197 | BEAVERLODGE1 | 9 | 001 | 103 | | 82612 101 | | | LEAD-210, TOTAL |
| 197 | BEAVERLODGE1 | 9 | 001 | 103 | | 92601 101 | | | URANIUM, TOTAL |
| 200 | BEAVERLODGE1 | 4 | 001 | 101 | | 88613 101 | | | RADIUM-226, TOTAL |
| 200 | BEAVERLODGE1 | 4 | 001 | 101 | | 82612 101 | | | LEAD-210, TOTAL |
| 200 | BEAVERLODGE1 | 4 | 001 | 101 | | 92601 101 | | | URANIUM, TOTAL |
| 201 | BEAVERLODGE1 | 5 | 001 | 102 | | 88613 101 | | | RADIUM-226, TOTAL |
| 201 | BEAVERLODGE1 | 5 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 201 | BEAVERLODGE1 | 5 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 202 | BEAVERLODGE1 | 6 | 001 | 103 | | 88613 101 | | | RADIUM-226, TOTAL |
| 202 | BEAVERLODGE1 | 6 | 001 | 103 | | 92601 101 | | | URANIUM, TOTAL |
| 205 | BEAVERLODGE1 | 1 | 001 | 104 | | 88613 101 | | | RADIUM-226, TOTAL |
| 205 | BEAVERLODGE1 | 1 | 001 | 104 | | 82612 101 | | | LEAD-210, TOTAL |
| 205 | BEAVERLODGE1 | 1 | 001 | 104 | | 92601 101 | | | URANIUM, TOTAL |
| 206 | BEAVERLODGE1 | 2 | 001 | 102 | | 88613 101 | | | RADIUM-226, TOTAL |
| 206 | BEAVERLODGE1 | 2 | 001 | 103 | | 82612 101 | | | LEAD-210, TOTAL |
| 206 | BEAVERLODGE1 | 2 | 001 | 103 | | 92601 101 | | | URANIUM, TOTAL |
| 212 | BEAVERLODGE1 | 28A | 001 | 108 | | 88613 101 | | | RADIUM-226, TOTAL |
| 212 | BEAVERLODGE1 | 28A | 001 | 108 | | 82612 101 | | | LEAD-210, TOTAL |
| 212 | BEAVERLODGE1 | 28A | 001 | 108 | | 92601 101 | | | URANIUM, TOTAL |
| 215 | BEAVERLODGE1 | 28S | 001 | 108 | | 88613 101 | | | RADIUM-226, TOTAL |
| 215 | BEAVERLODGE1 | 28S | 001 | 108 | | 82612 101 | | | LEAD-210, TOTAL |
| 215 | BEAVERLODGE1 | 28S | 001 | 108 | | 92601 101 | | | URANIUM, TOTAL |
| 218 | BEAVERLODGE1 | 28W | 001 | 108 | | 88613 101 | | | RADIUM-226, TOTAL |
| 218 | BEAVERLODGE1 | 28W | 001 | 108 | | 82612 101 | | | LEAD-210, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | 703. STUDY IDENTIFIER | 704. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | 705. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 218 | BEAVERLODGE1 | 284 | 001 | 108 | | 92601 | 101 | | URANIUM, TOTAL |
| 221 | BEAVERLODGE1 | 64 | 001 | 101 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 221 | BEAVERLODGE1 | 64 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 221 | BEAVERLODGE1 | 64 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 222 | BEAVERLODGE1 | 65 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 222 | BEAVERLODGE1 | 65 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 222 | BEAVERLODGE1 | 65 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 223 | BEAVERLODGE1 | 66 | 001 | 103 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 223 | BEAVERLODGE1 | 66 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 223 | BEAVERLODGE1 | 66 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 226 | BEAVERLODGE1 | 61 | 001 | 101 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 226 | BEAVERLODGE1 | 61 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 226 | BEAVERLODGE1 | 61 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 227 | BEAVERLODGE1 | 62 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 227 | BEAVERLODGE1 | 62 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 227 | BEAVERLODGE1 | 62 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 228 | BEAVERLODGE1 | 63 | 001 | 103 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 228 | BEAVERLODGE1 | 63 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 228 | BEAVERLODGE1 | 63 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 231 | BEAVERLODGE1 | 58 | 001 | 104 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 231 | BEAVERLODGE1 | 58 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 231 | BEAVERLODGE1 | 58 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 232 | BEAVERLODGE1 | 59 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 232 | BEAVERLODGE1 | 59 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 232 | BEAVERLODGE1 | 59 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 235 | BEAVERLODGE1 | 53 | 001 | 106 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 235 | BEAVERLODGE1 | 53 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 235 | BEAVERLODGE1 | 53 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 241 | BEAVERLODGE1 | 193 | 001 | 101 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 241 | BEAVERLODGE1 | 193 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 241 | BEAVERLODGE1 | 193 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 242 | BEAVERLODGE1 | 194 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 242 | BEAVERLODGE1 | 194 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 242 | BEAVERLODGE1 | 194 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 243 | BEAVERLODGE1 | 195 | 001 | 103 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 243 | BEAVERLODGE1 | 195 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 243 | BEAVERLODGE1 | 195 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 246 | BEAVERLODGE1 | 201 | 001 | 106 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 246 | BEAVERLODGE1 | 201 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 246 | BEAVERLODGE1 | 201 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 252 | BEAVERLODGE1 | 386 | 001 | 108 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 252 | BEAVERLODGE1 | 386 | 001 | 108 | | 82612 | 101 | | LEAD-210, TOTAL |
| 252 | BEAVERLODGE1 | 386 | 001 | 108 | | 92601 | 101 | | URANIUM, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | #03. STUDY IDENTIFIER | #04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | #05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 254 | BEAVERLODGEL | 385 | 001 | 108 | | 86613 101 | | | RADIUM-226, TOTAL |
| 254 | BEAVERLODGEL | 385 | 001 | 108 | | 82612 101 | | | LEAD-210, TOTAL |
| 254 | BEAVERLODGEL | 385 | 001 | 108 | | 92601 101 | | | URANIUM, TOTAL |
| 256 | BEAVERLODGEL | 380 | 001 | 108 | | 86613 101 | | | RADIUM-226, TOTAL |
| 256 | BEAVERLODGEL | 380 | 001 | 108 | | 82612 101 | | | LEAD-210, TOTAL |
| 256 | BEAVERLODGEL | 380 | 001 | 108 | | 92601 101 | | | URANIUM, TOTAL |
| 258 | BEAVERLODGEL | 377 | 001 | 108 | | 86613 101 | | | RADIUM-226, TOTAL |
| 258 | BEAVERLODGEL | 377 | 001 | 108 | | 82612 101 | | | LEAD-210, TOTAL |
| 258 | BEAVERLODGEL | 377 | 001 | 108 | | 92601 101 | | | URANIUM, TOTAL |
| 260 | BEAVERLODGEL | 376 | 001 | 108 | | 86613 101 | | | RADIUM-226, TOTAL |
| 260 | BEAVERLODGEL | 376 | 001 | 108 | | 82612 101 | | | LEAD-210, TOTAL |
| 260 | BEAVERLODGEL | 376 | 001 | 108 | | 92601 101 | | | URANIUM, TOTAL |
| 262 | BEAVERLODGEL | 349 | 001 | 101 | | 86613 101 | | | RADIUM-226, TOTAL |
| 262 | BEAVERLODGEL | 349 | 001 | 101 | | 82612 101 | | | LEAD-210, TOTAL |
| 262 | BEAVERLODGEL | 349 | 001 | 101 | | 92601 101 | | | URANIUM, TOTAL |
| 263 | BEAVERLODGEL | 350 | 001 | 102 | | 86613 101 | | | RADIUM-226, TOTAL |
| 263 | BEAVERLODGEL | 350 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 263 | BEAVERLODGEL | 350 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 264 | BEAVERLODGEL | 351 | 001 | 103 | | 86613 101 | | | RADIUM-226, TOTAL |
| 264 | BEAVERLODGEL | 351 | 001 | 103 | | 82612 101 | | | LEAD-210, TOTAL |
| 264 | BEAVERLODGEL | 351 | 001 | 103 | | 92601 101 | | | URANIUM, TOTAL |
| 266 | BEAVERLODGEL | 347 | 001 | 104 | | 86613 101 | | | RADIUM-226, TOTAL |
| 266 | BEAVERLODGEL | 347 | 001 | 104 | | 82612 101 | | | LEAD-210, TOTAL |
| 266 | BEAVERLODGEL | 347 | 001 | 104 | | 92601 101 | | | URANIUM, TOTAL |
| 267 | BEAVERLODGEL | 343 | 001 | 102 | | 86613 101 | | | RADIUM-226, TOTAL |
| 267 | BEAVERLODGEL | 343 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 267 | BEAVERLODGEL | 343 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 269 | BEAVERLODGEL | 345 | 001 | 104 | | 86613 101 | | | RADIUM-226, TOTAL |
| 269 | BEAVERLODGEL | 345 | 001 | 104 | | 82612 101 | | | LEAD-210, TOTAL |
| 269 | BEAVERLODGEL | 345 | 001 | 104 | | 92601 101 | | | URANIUM, TOTAL |
| 270 | BEAVERLODGEL | 346 | 001 | 102 | | 86613 101 | | | RADIUM-226, TOTAL |
| 270 | BEAVERLODGEL | 346 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 270 | BEAVERLODGEL | 346 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 272 | BEAVERLODGEL | 343 | 001 | 104 | | 86613 101 | | | RADIUM-226, TOTAL |
| 272 | BEAVERLODGEL | 343 | 001 | 104 | | 82612 101 | | | LEAD-210, TOTAL |
| 272 | BEAVERLODGEL | 343 | 001 | 104 | | 92601 101 | | | URANIUM, TOTAL |
| 273 | BEAVERLODGEL | 344 | 001 | 102 | | 86613 101 | | | RADIUM-226, TOTAL |
| 273 | BEAVERLODGEL | 344 | 001 | 102 | | 82612 101 | | | LEAD-210, TOTAL |
| 273 | BEAVERLODGEL | 344 | 001 | 102 | | 92601 101 | | | URANIUM, TOTAL |
| 275 | BEAVERLODGEL | 341 | 001 | 104 | | 86613 101 | | | RADIUM-226, TOTAL |
| 275 | BEAVERLODGEL | 341 | 001 | 104 | | 82612 101 | | | LEAD-210, TOTAL |
| 275 | BEAVERLODGEL | 341 | 001 | 104 | | 92601 101 | | | URANIUM, TOTAL |
| 276 | BEAVERLODGEL | 342 | 001 | 102 | | 86613 101 | | | RADIUM-226, TOTAL |

TABLE90-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | *03. STUDY IDENTIFIER | *04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | *05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 276 | BEAVERLODGEL | 342 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 276 | BEAVERLODGEL | 342 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 278 | BEAVERLODGEL | 338 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 278 | BEAVERLODGEL | 338 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 278 | BEAVERLODGEL | 338 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 279 | BEAVERLODGEL | 339 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 279 | BEAVERLODGEL | 339 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 279 | BEAVERLODGEL | 339 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 280 | BEAVERLODGEL | 340 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 280 | BEAVERLODGEL | 340 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 280 | BEAVERLODGEL | 340 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 282 | BEAVERLODGEL | 335 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 282 | BEAVERLODGEL | 335 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 282 | BEAVERLODGEL | 335 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 283 | BEAVERLODGEL | 336 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 283 | BEAVERLODGEL | 336 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 283 | BEAVERLODGEL | 336 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 284 | BEAVERLODGEL | 337 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 284 | BEAVERLODGEL | 337 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 284 | BEAVERLODGEL | 337 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 286 | BEAVERLODGEL | 130 | 001 | 117 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 286 | BEAVERLODGEL | 130 | 001 | 117 | | 82612 | 101 | | LEAD-210, TOTAL |
| 286 | BEAVERLODGEL | 130 | 001 | 117 | | 92601 | 101 | | URANIUM, TOTAL |
| 287 | BEAVERLODGEL | 131 | 001 | 114 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 287 | BEAVERLODGEL | 131 | 001 | 114 | | 82612 | 101 | | LEAD-210, TOTAL |
| 287 | BEAVERLODGEL | 131 | 001 | 114 | | 92601 | 101 | | URANIUM, TOTAL |
| 288 | BEAVERLODGEL | 132 | 001 | 115 | | 92601 | 101 | | URANIUM, TOTAL |
| 290 | BEAVERLODGEL | 127 | 001 | 106 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 290 | BEAVERLODGEL | 127 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 290 | BEAVERLODGEL | 127 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 292 | BEAVERLODGEL | 124 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 292 | BEAVERLODGEL | 124 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 292 | BEAVERLODGEL | 124 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 293 | BEAVERLODGEL | 125 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 293 | BEAVERLODGEL | 125 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 293 | BEAVERLODGEL | 125 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 294 | BEAVERLODGEL | 126 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 294 | BEAVERLODGEL | 126 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 294 | BEAVERLODGEL | 126 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 297 | BEAVERLODGEL | 121 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 297 | BEAVERLODGEL | 121 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 297 | BEAVERLODGEL | 121 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 298 | BEAVERLODGEL | 122 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | 703. STUDY IDENTIFIER | 704. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | 705. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 298 | BEAVERLODGE | 122 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 298 | BEAVERLODGE | 122 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 299 | BEAVERLODGE | 123 | 001 | 103 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 299 | BEAVERLODGE | 123 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 299 | BEAVERLODGE | 123 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 302 | BEAVERLODGE | 118 | 001 | 104 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 302 | BEAVERLODGE | 118 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 302 | BEAVERLODGE | 118 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 303 | BEAVERLODGE | 119 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 303 | BEAVERLODGE | 119 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 303 | BEAVERLODGE | 119 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 306 | BEAVERLODGE | 115 | 001 | 113 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 306 | BEAVERLODGE | 115 | 001 | 113 | | 82612 | 101 | | LEAD-210, TOTAL |
| 306 | BEAVERLODGE | 115 | 001 | 113 | | 92601 | 101 | | URANIUM, TOTAL |
| 307 | BEAVERLODGE | 116 | 001 | 114 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 307 | BEAVERLODGE | 116 | 001 | 114 | | 82612 | 101 | | LEAD-210, TOTAL |
| 307 | BEAVERLODGE | 116 | 001 | 114 | | 92601 | 101 | | URANIUM, TOTAL |
| 308 | BEAVERLODGE | 117 | 001 | 115 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 308 | BEAVERLODGE | 117 | 001 | 115 | | 82612 | 101 | | LEAD-210, TOTAL |
| 308 | BEAVERLODGE | 117 | 001 | 115 | | 92601 | 101 | | URANIUM, TOTAL |
| 311 | BEAVERLODGE | 113 | 001 | 106 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 311 | BEAVERLODGE | 113 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 311 | BEAVERLODGE | 113 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 314 | BEAVERLODGE | 109 | 001 | 104 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 314 | BEAVERLODGE | 109 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 314 | BEAVERLODGE | 109 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 315 | BEAVERLODGE | 110 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 315 | BEAVERLODGE | 110 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 315 | BEAVERLODGE | 110 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 318 | BEAVERLODGE | 106 | 001 | 104 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 318 | BEAVERLODGE | 106 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 318 | BEAVERLODGE | 106 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 319 | BEAVERLODGE | 107 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 319 | BEAVERLODGE | 107 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 319 | BEAVERLODGE | 107 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 325 | BEAVERLODGE | 390 | 001 | 108 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 325 | BEAVERLODGE | 390 | 001 | 108 | | 82612 | 101 | | LEAD-210, TOTAL |
| 325 | BEAVERLODGE | 390 | 001 | 108 | | 92601 | 101 | | URANIUM, TOTAL |
| 327 | BEAVERLODGE | 332 | 001 | 113 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 327 | BEAVERLODGE | 332 | 001 | 113 | | 82612 | 101 | | LEAD-210, TOTAL |
| 327 | BEAVERLODGE | 332 | 001 | 113 | | 92601 | 101 | | URANIUM, TOTAL |
| 328 | BEAVERLODGE | 333 | 001 | 114 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 328 | BEAVERLODGE | 333 | 001 | 114 | | 82612 | 101 | | LEAD-210, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | *03. STUDY IDENTIFIER | *04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | *05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 328 | BEAVERLODGEL | 333 | 001 | 114 | | 92601 | 101 | | URANIUM, TOTAL |
| 329 | BEAVERLODGEL | 334 | 001 | 115 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 329 | BEAVERLODGEL | 334 | 001 | 115 | | 82612 | 101 | | LEAD-210, TOTAL |
| 329 | BEAVERLODGEL | 334 | 001 | 115 | | 92601 | 101 | | URANIUM, TOTAL |
| 331 | BEAVERLODGEL | 329 | 001 | 113 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 331 | BEAVERLODGEL | 329 | 001 | 113 | | 82612 | 101 | | LEAD-210, TOTAL |
| 331 | BEAVERLODGEL | 329 | 001 | 113 | | 92601 | 101 | | URANIUM, TOTAL |
| 332 | BEAVERLODGEL | 330 | 001 | 114 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 332 | BEAVERLODGEL | 330 | 001 | 114 | | 82612 | 101 | | LEAD-210, TOTAL |
| 332 | BEAVERLODGEL | 330 | 001 | 114 | | 92601 | 101 | | URANIUM, TOTAL |
| 333 | BEAVERLODGEL | 331 | 001 | 115 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 333 | BEAVERLODGEL | 331 | 001 | 115 | | 82612 | 101 | | LEAD-210, TOTAL |
| 333 | BEAVERLODGEL | 331 | 001 | 115 | | 92601 | 101 | | URANIUM, TOTAL |
| 335 | BEAVERLODGEL | 326 | 001 | 113 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 335 | BEAVERLODGEL | 326 | 001 | 113 | | 82612 | 101 | | LEAD-210, TOTAL |
| 335 | BEAVERLODGEL | 326 | 001 | 113 | | 92601 | 101 | | URANIUM, TOTAL |
| 336 | BEAVERLODGEL | 327 | 001 | 114 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 336 | BEAVERLODGEL | 327 | 001 | 114 | | 82612 | 101 | | LEAD-210, TOTAL |
| 336 | BEAVERLODGEL | 327 | 001 | 114 | | 92601 | 101 | | URANIUM, TOTAL |
| 337 | BEAVEGLODGEL | 328 | 001 | 115 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 337 | BEAVERLODGEL | 328 | 001 | 115 | | 82612 | 101 | | LEAD-210, TOTAL |
| 337 | BEAVERLODGEL | 328 | 001 | 115 | | 92601 | 101 | | URANIUM, TOTAL |
| 339 | BEAVERLODGEL | 323 | 001 | 101 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 339 | BEAVERLODGEL | 323 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 339 | BEAVERLODGEL | 323 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 340 | BEAVERLODGEL | 324 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 340 | BEAVERLODGEL | 324 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 340 | BEAVERLODGEL | 324 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 341 | BEAVERLODGEL | 325 | 001 | 103 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 341 | BEAVERLODGEL | 325 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 341 | BEAVERLODGEL | 325 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 343 | BEAVERLODGEL | 320 | 001 | 113 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 343 | BEAVERLODGEL | 320 | 001 | 113 | | 82612 | 101 | | LEAD-210, TOTAL |
| 343 | BEAVERLODGEL | 320 | 001 | 113 | | 92601 | 101 | | URANIUM, TOTAL |
| 344 | BEAVERLODGEL | 321 | 001 | 114 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 344 | BEAVERLODGEL | 321 | 001 | 114 | | 82612 | 101 | | LEAD-210, TOTAL |
| 344 | BEAVERLODGEL | 321 | 001 | 114 | | 92601 | 101 | | URANIUM, TOTAL |
| 345 | BEAVERLODGEL | 322 | 001 | 115 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 345 | BEAVERLODGEL | 322 | 001 | 115 | | 82612 | 101 | | LEAD-210, TOTAL |
| 345 | BEAVERLODGEL | 322 | 001 | 115 | | 92601 | 101 | | URANIUM, TOTAL |
| 348 | BEAVERLODGEL | 270 | 001 | 104 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 348 | BEAVERLODGEL | 270 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 348 | BEAVERLODGEL | 270 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | #03. STUDY IDENTIFIER | #04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | #05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 349 | BEAVERLODGEL | 271 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 349 | BEAVERLODGEL | 271 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 349 | BEAVERLODGEL | 271 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 350 | BEAVERLODGEL | 267 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 350 | BEAVERLODGEL | 267 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 350 | BEAVERLODGEL | 267 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 351 | BEAVERLODGEL | 268 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 351 | BEAVERLODGEL | 268 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 351 | BEAVERLODGEL | 268 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 352 | BEAVERLODGEL | 269 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 352 | BEAVERLODGEL | 269 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 352 | BEAVERLODGEL | 269 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 354 | BEAVERLODGEL | 264 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 354 | BEAVERLODGEL | 264 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 354 | BEAVERLODGEL | 264 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 355 | BEAVERLODGEL | 265 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 355 | BEAVERLODGEL | 265 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 355 | BEAVERLODGEL | 265 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 357 | BEAVERLODGEL | 261 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 357 | BEAVERLODGEL | 261 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 357 | BEAVERLODGEL | 261 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 358 | BEAVERLODGEL | 262 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 358 | BEAVERLODGEL | 262 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 358 | BEAVERLODGEL | 262 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 360 | BEAVERLODGEL | 258 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 360 | BEAVERLODGEL | 258 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 360 | BEAVERLODGEL | 258 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 361 | BEAVERLODGEL | 259 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 361 | BEAVERLODGEL | 259 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 361 | BEAVERLODGEL | 259 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 363 | BEAVERLODGEL | 255 | 001 | 113 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 363 | BEAVERLODGEL | 255 | 001 | 113 | | 82612 | 101 | | LEAD-210, TOTAL |
| 363 | BEAVERLODGEL | 255 | 001 | 113 | | 92601 | 101 | | URANIUM, TOTAL |
| 364 | BEAVERLODGEL | 256 | 001 | 114 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 364 | BEAVERLODGEL | 256 | 001 | 114 | | 82612 | 101 | | LEAD-210, TOTAL |
| 364 | BEAVERLODGEL | 256 | 001 | 114 | | 92601 | 101 | | URANIUM, TOTAL |
| 365 | BEAVERLODGEL | 257 | 001 | 115 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 365 | BEAVERLODGEL | 257 | 001 | 115 | | 82612 | 101 | | LEAD-210, TOTAL |
| 365 | BEAVERLODGEL | 257 | 001 | 115 | | 92601 | 101 | | URANIUM, TOTAL |
| 367 | BEAVERLODGEL | 246 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 367 | BEAVERLODGEL | 246 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 367 | BEAVERLODGEL | 246 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 368 | BEAVERLODGEL | 247 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | #03. STUDY IDENTIFIER | #04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | #05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 368 | BEAVERLODGEL | 247 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 368 | BEAVERLODGEL | 247 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 370 | BEAVERLODGEL | 205 | 001 | 108 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 370 | BEAVERLODGEL | 205 | 001 | 108 | | 82612 | 101 | | LEAD-210, TOTAL |
| 370 | BEAVERLODGEL | 205 | 001 | 108 | | 92601 | 101 | | URANIUM, TOTAL |
| 372 | BEAVERLODGEL | 183 | 001 | 106 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 372 | BEAVERLODGEL | 183 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 372 | BEAVERLODGEL | 183 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 375 | BEAVERLODGEL | 182 | 001 | 106 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 375 | BEAVERLODGEL | 182 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 375 | BEAVERLODGEL | 182 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 376 | BEAVERLODGEL | 181 | 001 | 108 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 376 | BEAVERLODGEL | 181 | 001 | 108 | | 82612 | 101 | | LEAD-210, TOTAL |
| 376 | BEAVERLODGEL | 181 | 001 | 108 | | 92601 | 101 | | URANIUM, TOTAL |
| 378 | BEAVERLODGEL | 145 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 378 | BEAVERLODGEL | 145 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 378 | BEAVERLODGEL | 145 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 379 | BEAVERLODGEL | 147 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 379 | BEAVERLODGEL | 147 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 379 | BEAVERLODGEL | 147 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 381 | BEAVERLODGEL | 142 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 381 | BEAVERLODGEL | 142 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 381 | BEAVERLODGEL | 142 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 382 | BEAVERLODGEL | 143 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 382 | BEAVERLODGEL | 143 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 382 | BEAVERLODGEL | 143 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 383 | BEAVERLODGEL | 144 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 383 | BEAVERLODGEL | 144 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 383 | BEAVERLODGEL | 144 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 385 | BEAVERLODGEL | 139 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 385 | BEAVERLODGEL | 139 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 385 | BEAVERLODGEL | 139 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 386 | BEAVERLODGEL | 140 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 386 | BEAVERLODGEL | 140 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 386 | BEAVERLODGEL | 140 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 387 | BEAVERLODGEL | 141 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 387 | BEAVERLODGEL | 141 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 387 | BEAVERLODGEL | 141 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 389 | BEAVERLODGEL | 136 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 389 | BEAVERLODGEL | 136 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 389 | BEAVERLODGEL | 136 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 390 | BEAVERLODGEL | 137 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 390 | BEAVERLODGEL | 137 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | #03. STUDY IDENTIFIER | #04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | #05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 390 | BEAVERLODGEL | 137 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 391 | BEAVERLODGEL | 138 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 391 | BEAVERLODGEL | 138 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 391 | BEAVERLODGEL | 138 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 393 | BEAVERLODGEL | 148 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 393 | BEAVERLODGEL | 148 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 393 | BEAVERLODGEL | 148 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 394 | BEAVERLODGEL | 149 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 394 | BEAVERLODGEL | 149 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 394 | BEAVERLODGEL | 149 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 395 | BEAVERLODGEL | 150 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 395 | BEAVERLODGEL | 150 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 395 | BEAVERLODGEL | 150 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 401 | BEAVERLODGEL | 383 | 001 | 106 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 401 | BEAVERLODGEL | 383 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 401 | BEAVERLODGEL | 383 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 403 | BEAVERLODGEL | 225 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 403 | BEAVERLODGEL | 225 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 403 | BEAVERLODGEL | 225 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 404 | BEAVERLODGEL | 226 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 404 | BEAVERLODGEL | 226 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 404 | BEAVERLODGEL | 226 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 405 | BEAVERLODGEL | 227 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 405 | BEAVERLODGEL | 227 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 405 | BEAVERLODGEL | 227 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 407 | BEAVERLODGEL | 222 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 407 | BEAVERLODGEL | 222 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 407 | BEAVERLODGEL | 222 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 408 | BEAVERLODGEL | 223 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 408 | BEAVERLODGEL | 223 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 408 | BEAVERLODGEL | 223 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 409 | BEAVERLODGEL | 224 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 409 | BEAVERLODGEL | 224 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 409 | BEAVERLODGEL | 224 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 412 | BEAVERLODGEL | 219 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 412 | BEAVERLODGEL | 219 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 412 | BEAVERLODGEL | 219 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 413 | BEAVERLODGEL | 220 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 413 | BEAVERLODGEL | 220 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 413 | BEAVERLODGEL | 220 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 414 | BEAVERLODGEL | 216 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 414 | BEAVERLODGEL | 216 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 414 | BEAVERLODGEL | 216 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | #03. STUDY IDENTIFIER | #04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | #05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 415 | BEAVERLODGEL | 217 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 415 | BEAVERLODGEL | 217 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 415 | BEAVERLODGEL | 217 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 417 | BEAVERLODGEL | 213 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 417 | BEAVERLODGEL | 213 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 417 | BEAVERLODGEL | 213 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 418 | BEAVERLODGEL | 214 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 418 | BEAVERLODGEL | 214 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 418 | BEAVERLODGEL | 214 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 419 | BEAVERLODGEL | 215 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 419 | BEAVERLODGEL | 215 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 419 | BEAVERLODGEL | 215 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 421 | BEAVERLODGEL | 210 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 421 | BEAVERLODGEL | 210 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 421 | BEAVERLODGEL | 210 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 422 | BEAVERLODGEL | 211 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 422 | BEAVERLODGEL | 211 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 422 | BEAVERLODGEL | 211 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 423 | BEAVERLODGEL | 212 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 423 | BEAVERLODGEL | 212 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 423 | BEAVERLODGEL | 212 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 429 | BEAVERLODGEL | 388 | 001 | 108 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 429 | BEAVERLODGEL | 388 | 001 | 108 | | 82612 | 101 | | LEAD-210, TOTAL |
| 429 | BEAVERLODGEL | 388 | 001 | 108 | | 92601 | 101 | | URANIUM, TOTAL |
| 431 | BEAVERLODGEL | 365 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 431 | BEAVERLODGEL | 365 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 431 | BEAVERLODGEL | 365 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 432 | BEAVERLODGEL | 366 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 432 | BEAVERLODGEL | 366 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 432 | BEAVERLODGEL | 366 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 434 | BEAVERLODGEL | 360 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 434 | BEAVERLODGEL | 360 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 434 | BEAVERLODGEL | 360 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 435 | BEAVERLODGEL | 361 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 435 | BEAVERLODGEL | 361 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 435 | BEAVERLODGEL | 361 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 437 | BEAVERLODGEL | 358 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 437 | BEAVERLODGEL | 358 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 437 | BEAVERLODGEL | 358 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 438 | BEAVERLODGEL | 359 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 438 | BEAVERLODGEL | 359 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 438 | BEAVERLODGEL | 359 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 440 | BEAVERLODGEL | 355 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |

TABLE0B-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | #03. STUDY IDENTIFIER | #04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | #05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 440 | BEAVERLODGEL | 355 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 440 | BEAVERLODGEL | 355 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 441 | BEAVERLODGEL | 356 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 441 | BEAVERLODGEL | 356 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 441 | BEAVERLODGEL | 356 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 442 | BEAVERLODGEL | 357 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 442 | BEAVERLODGEL | 357 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 442 | BEAVERLODGEL | 357 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 444 | BEAVERLODGEL | 352 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 444 | BEAVERLODGEL | 352 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 444 | BEAVERLODGEL | 352 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 445 | BEAVERLODGEL | 353 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 445 | BEAVERLODGEL | 353 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 445 | BEAVERLODGEL | 353 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 446 | BEAVERLODGEL | 354 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 446 | BEAVERLODGEL | 354 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 446 | BEAVERLODGEL | 354 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 448 | BEAVERLODGEL | 318 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 448 | BEAVERLODGEL | 318 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 448 | BEAVERLODGEL | 318 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 449 | BEAVERLODGEL | 319 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 449 | BEAVERLODGEL | 319 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 449 | BEAVERLODGEL | 319 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 451 | BEAVERLODGEL | 316 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 451 | BEAVERLODGEL | 316 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 451 | BEAVERLODGEL | 316 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 452 | BEAVERLODGEL | 317 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 452 | BEAVERLODGEL | 317 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 452 | BEAVERLODGEL | 317 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 454 | BEAVERLODGEL | 314 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 454 | BEAVERLODGEL | 314 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 454 | BEAVERLODGEL | 314 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 455 | BEAVERLODGEL | 315 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 455 | BEAVERLODGEL | 315 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 455 | BEAVERLODGEL | 315 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 457 | BEAVERLODGEL | 312 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 457 | BEAVERLODGEL | 312 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 457 | BEAVERLODGEL | 312 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 458 | BEAVERLODGEL | 313 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 458 | BEAVERLODGEL | 313 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 458 | BEAVERLODGEL | 313 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 460 | BEAVERLODGEL | 309 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 460 | BEAVERLODGEL | 309 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | *03. STUDY IDENTIFIER | *04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | *05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 460 | BEAVERLODGEL | 309 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 461 | BEAVERLODGEL | 310 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 461 | BEAVERLODGEL | 310 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 461 | BEAVERLODGEL | 310 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 462 | BEAVERLODGEL | 311 | 001 | 103 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 462 | BEAVERLODGEL | 311 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 462 | BEAVERLODGEL | 311 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 464 | BEAVERLODGEL | 298 | 001 | 101 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 464 | BEAVERLODGEL | 298 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 464 | BEAVERLODGEL | 298 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 465 | BEAVERLODGEL | 299 | 001 | 103 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 465 | BEAVERLODGEL | 299 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 465 | BEAVERLODGEL | 299 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 467 | BEAVERLODGEL | 282 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 467 | BEAVERLODGEL | 282 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 468 | BEAVERLODGEL | 283 | 001 | 104 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 468 | BEAVERLODGEL | 283 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 468 | BEAVERLODGEL | 283 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 470 | BEAVERLODGEL | 279 | 001 | 101 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 470 | BEAVERLODGEL | 279 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 470 | BEAVERLODGEL | 279 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 471 | BEAVERLODGEL | 280 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 471 | BEAVERLODGEL | 280 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 471 | BEAVERLODGEL | 280 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 472 | BEAVERLODGEL | 281 | 001 | 103 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 472 | BEAVERLODGEL | 281 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 472 | BEAVERLODGEL | 281 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 474 | BEAVERLODGEL | 276 | 001 | 101 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 474 | BEAVERLODGEL | 276 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 474 | BEAVERLODGEL | 276 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 475 | BEAVERLODGEL | 277 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 475 | BEAVERLODGEL | 277 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 475 | BEAVERLODGEL | 277 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 476 | BEAVERLODGEL | 278 | 001 | 103 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 476 | BEAVERLODGEL | 278 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 476 | BEAVERLODGEL | 278 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 482 | BEAVERLODGEL | 375 | 001 | 106 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 482 | BEAVERLODGEL | 375 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 482 | BEAVERLODGEL | 375 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 484 | BEAVERLODGEL | 374 | 001 | 106 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 484 | BEAVERLODGEL | 374 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 484 | BEAVERLODGEL | 374 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 486 | BEAVERLODGEL | 369 | 001 | 106 | | 88613 | 101 | | RADIUM-226, TOTAL |

TABLE00-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | #03. STUDY IDENTIFIER | #04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | #05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 486 | BEAVERLODGEL | 369 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 486 | BEAVERLODGEL | 369 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 488 | BEAVERLODGEL | 362 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 488 | BEAVERLODGEL | 362 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 488 | BEAVERLODGEL | 362 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 489 | BEAVERLODGEL | 363 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 489 | BEAVERLODGEL | 363 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 489 | BEAVERLODGEL | 363 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 490 | BEAVERLODGEL | 364 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 490 | BEAVERLODGEL | 364 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 490 | BEAVERLODGEL | 364 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 492 | BEAVERLODGEL | 289 | 001 | 106 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 492 | BEAVERLODGEL | 289 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 492 | BEAVERLODGEL | 289 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 494 | BEAVERLODGEL | 288 | 001 | 106 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 494 | BEAVERLODGEL | 288 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 494 | BEAVERLODGEL | 288 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 496 | BEAVERLODGEL | 287 | 001 | 106 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 496 | BEAVERLODGEL | 287 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 496 | BEAVERLODGEL | 287 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 498 | BEAVERLODGEL | 252 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 498 | BEAVERLODGEL | 252 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 498 | BEAVERLODGEL | 252 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 499 | BEAVERLODGEL | 253 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 499 | BEAVERLODGEL | 253 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 499 | BEAVERLODGEL | 253 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 500 | BEAVERLODGEL | 254 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 500 | BEAVERLODGEL | 254 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 500 | BEAVERLODGEL | 254 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 502 | BEAVERLODGEL | 249 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 502 | BEAVERLODGEL | 249 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 502 | BEAVERLODGEL | 249 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 503 | BEAVERLODGEL | 250 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 503 | BEAVERLODGEL | 250 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 503 | BEAVERLODGEL | 250 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 505 | BEAVERLODGEL | 243 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 505 | BEAVERLODGEL | 243 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 505 | BEAVERLODGEL | 243 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 506 | BEAVERLODGEL | 244 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 506 | BEAVERLODGEL | 244 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 506 | BEAVERLODGEL | 244 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 508 | BEAVERLODGEL | 240 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 508 | BEAVERLODGEL | 240 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | *03. STUDY IDENTIFIER | *04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | *05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 508 | BEAVERLODGEL | 240 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 509 | BEAVERLODGEL | 241 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 509 | BEAVERLODGEL | 241 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 509 | BEAVERLODGEL | 241 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 510 | BEAVERLODGEL | 242 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 510 | BEAVERLODGEL | 242 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 510 | BEAVERLODGEL | 242 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 512 | BEAVERLODGEL | 237 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 512 | BEAVERLODGEL | 237 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 512 | BEAVERLODGEL | 237 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 513 | BEAVERLODGEL | 238 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 513 | BEAVERLODGEL | 238 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 513 | BEAVERLODGEL | 238 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 515 | BEAVERLODGEL | 235 | 001 | 106 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 515 | BEAVERLODGEL | 235 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 515 | BEAVERLODGEL | 235 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 517 | BEAVERLODGEL | 232 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 517 | BEAVERLODGEL | 232 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 517 | BEAVERLODGEL | 232 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 518 | BEAVERLODGEL | 233 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 518 | BEAVERLODGEL | 233 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 518 | BEAVERLODGEL | 233 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 520 | BEAVERLODGEL | 228 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 520 | BEAVERLODGEL | 228 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 520 | BEAVERLODGEL | 228 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 521 | BEAVERLODGEL | 229 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 521 | BEAVERLODGEL | 229 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 521 | BEAVERLODGEL | 229 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 523 | BEAVERLODGEL | 190 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 523 | BEAVERLODGEL | 190 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 523 | BEAVERLODGEL | 190 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 524 | BEAVERLODGEL | 191 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 524 | BEAVERLODGEL | 191 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 524 | BEAVERLODGEL | 191 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 525 | BEAVERLODGEL | 192 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 525 | BEAVERLODGEL | 192 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 525 | BEAVERLODGEL | 192 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 527 | BEAVERLODGEL | 187 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 528 | BEAVERLODGEL | 188 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 528 | BEAVERLODGEL | 188 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 528 | BEAVERLODGEL | 188 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 529 | BEAVERLODGEL | 189 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 529 | BEAVERLODGEL | 189 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | #03. STUDY IDENTIFIER | #04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | #05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 529 | BEAVERLODGEL | 189 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 531 | BEAVERLODGEL | 185 | 001 | 106 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 531 | BEAVERLODGEL | 185 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 531 | BEAVERLODGEL | 185 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 533 | BEAVERLODGEL | 103 | 001 | 101 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 533 | BEAVERLODGEL | 103 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 533 | BEAVERLODGEL | 103 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 534 | BEAVERLODGEL | 104 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 534 | BEAVERLODGEL | 104 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 534 | BEAVERLODGEL | 104 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 535 | BEAVERLODGEL | 105 | 001 | 103 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 535 | BEAVERLODGEL | 105 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 535 | BEAVERLODGEL | 105 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 537 | BEAVERLODGEL | 100 | 001 | 101 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 537 | BEAVERLODGEL | 100 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 537 | BEAVERLODGEL | 100 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 538 | BEAVERLODGEL | 101 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 538 | BEAVERLODGEL | 101 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 538 | BEAVERLODGEL | 101 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 539 | BEAVERLODGEL | 102 | 001 | 103 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 539 | BEAVERLODGEL | 102 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 539 | BEAVERLODGEL | 102 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 541 | BEAVERLODGEL | 97 | 001 | 104 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 541 | BEAVERLODGEL | 97 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 541 | BEAVERLODGEL | 97 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 542 | BEAVERLODGEL | 98 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 542 | BEAVERLODGEL | 98 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 542 | BEAVERLODGEL | 98 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 544 | BEAVERLODGEL | 94 | 001 | 101 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 544 | BEAVERLODGEL | 94 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 545 | BEAVERLODGEL | 95 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 545 | BEAVERLODGEL | 95 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 545 | BEAVERLODGEL | 95 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 546 | BEAVERLODGEL | 96 | 001 | 103 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 546 | BEAVERLODGEL | 96 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 546 | BEAVERLODGEL | 96 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 548 | BEAVERLODGEL | 91 | 001 | 101 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 548 | BEAVERLODGEL | 91 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 548 | BEAVERLODGEL | 91 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 549 | BEAVERLODGEL | 92 | 001 | 102 | | 88613 | 101 | | RADIUM-226, TOTAL |
| 549 | BEAVERLODGEL | 92 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 549 | BEAVERLODGEL | 92 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |

TABLE0B-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | #03. STUDY IDENTIFIER | #04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | #05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 550 | BEAVERLODGEL | 93 | 001 | 103 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 550 | BEAVERLODGEL | 93 | 001 | 103 | | 82612 | 101 | | LEAD-210, TOTAL |
| 550 | BEAVERLODGEL | 93 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 552 | BEAVERLODGEL | 88 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 552 | BEAVERLODGEL | 88 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 552 | BEAVERLODGEL | 88 | 001 | 104 | | 92601 | 101 | | URANIUM, TOTAL |
| 553 | BEAVERLODGEL | 89 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 553 | BEAVERLODGEL | 89 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 553 | BEAVERLODGEL | 89 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 555 | BEAVERLODGEL | 82 | 001 | 104 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 555 | BEAVERLODGEL | 82 | 001 | 104 | | 82612 | 101 | | LEAD-210, TOTAL |
| 555 | BEAVERLODGEL | 82 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 556 | BEAVERLODGEL | 84 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 557 | BEAVERLODGEL | 83 | 001 | 102 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 557 | BEAVERLODGEL | 83 | 001 | 102 | | 82612 | 101 | | LEAD-210, TOTAL |
| 557 | BEAVERLODGEL | 83 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 559 | BEAVERLODGEL | 79 | 001 | 101 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 559 | BEAVERLODGEL | 79 | 001 | 101 | | 82612 | 101 | | LEAD-210, TOTAL |
| 559 | BEAVERLODGEL | 79 | 001 | 101 | | 92601 | 101 | | URANIUM, TOTAL |
| 560 | BEAVERLODGEL | 80 | 001 | 105 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 560 | BEAVERLODGEL | 80 | 001 | 105 | | 82612 | 101 | | LEAD-210, TOTAL |
| 560 | BEAVERLODGEL | 80 | 001 | 102 | | 92601 | 101 | | URANIUM, TOTAL |
| 561 | BEAVERLODGEL | 81 | 001 | 103 | | 92601 | 101 | | URANIUM, TOTAL |
| 568 | BEAVERLODGEL | 209 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 568 | BEAVERLODGEL | 209 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 568 | BEAVERLODGEL | 209 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 569 | BEAVERLODGEL | 208 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 569 | BEAVERLODGEL | 208 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 569 | BEAVERLODGEL | 208 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 570 | BEAVERLODGEL | 206 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 570 | BEAVERLODGEL | 206 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 570 | BEAVERLODGEL | 206 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 571 | BEAVERLODGEL | 203 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 571 | BEAVERLODGEL | 203 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 571 | BEAVERLODGEL | 203 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 573 | BEAVERLODGEL | 398 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 573 | BEAVERLODGEL | 398 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 574 | BEAVERLODGEL | 397 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 574 | BEAVERLODGEL | 397 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 574 | BEAVERLODGEL | 397 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 576 | BEAVERLODGEL | 391 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 576 | BEAVERLODGEL | 391 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 576 | BEAVERLODGEL | 391 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |

TABLE08-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | #03. STUDY IDENTIFIER | #04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | #05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 577 | BEAVERLODGEL | 387 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 577 | BEAVERLODGEL | 387 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 577 | BEAVERLODGEL | 387 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 578 | BEAVERLODGEL | 384 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 578 | BEAVERLODGEL | 384 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 578 | BEAVERLODGEL | 384 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 579 | BEAVERLODGEL | 382 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 579 | BEAVERLODGEL | 382 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 579 | BEAVERLODGEL | 382 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 580 | BEAVERLODGEL | 381 | 001 | 116 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 580 | BEAVERLODGEL | 381 | 001 | 116 | | 82612 | 101 | | LEAD-210, TOTAL |
| 580 | BEAVERLODGEL | 381 | 001 | 116 | | 92601 | 101 | | URANIUM, TOTAL |
| 581 | BEAVERLODGEL | 204 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 581 | BEAVERLODGEL | 204 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 581 | BEAVERLODGEL | 204 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 582 | BEAVERLODGEL | 207 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 582 | BEAVERLODGEL | 207 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 582 | BEAVERLODGEL | 207 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 583 | BEAVERLODGEL | 378 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 583 | BEAVERLODGEL | 378 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 583 | BEAVERLODGEL | 378 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 584 | BEAVERLODGEL | 379 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 584 | BEAVERLODGEL | 379 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 584 | BEAVERLODGEL | 379 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 585 | BEAVERLODGEL | 202 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 585 | BEAVERLODGEL | 202 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 585 | BEAVERLODGEL | 202 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 586 | BEAVERLODGEL | 402 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 586 | BEAVERLODGEL | 402 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 586 | BEAVERLODGEL | 402 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 588 | BEAVERLODGEL | 399 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 588 | BEAVERLODGEL | 399 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 588 | BEAVERLODGEL | 399 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 594 | BEAVERLODGEL | 200 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 594 | BEAVERLODGEL | 200 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 594 | BEAVERLODGEL | 200 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 596 | BEAVERLODGEL | 197 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 596 | BEAVERLODGEL | 197 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 596 | BEAVERLODGEL | 197 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 598 | BEAVERLODGEL | 196 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 598 | BEAVERLODGEL | 196 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 598 | BEAVERLODGEL | 196 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 604 | BEAVERLODGEL | 199 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |

TABLE0B-1: MEASUREMENT RESULTS

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | 704. SAMPLE IDENTIFIER | *03. STUDY IDENTIFIER | *04. SRC'S SAMPLE TYPE | 1002. LAB IDENTIFIER | 1001. MEASUREMENT TYPE | *05. SAMPLE TREATMENT (SRC, FIELD) | 713. SAMPLE TREATMENT | 1101. MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| 604 | BEAVERLODGEL | 199 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 604 | BEAVERLODGEL | 199 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 606 | BEAVERLODGEL | 198 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 606 | BEAVERLODGEL | 198 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 606 | BEAVERLODGEL | 198 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 607 | BEAVERLODGEL | 395 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 607 | BEAVERLODGEL | 395 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 609 | BEAVERLODGEL | 401 | 001 | 116 | | 86613 | 100 | | RADIUM-226, TOTAL |
| 609 | BEAVERLODGEL | 401 | 001 | 116 | | 82612 | 100 | | LEAD-210, TOTAL |
| 609 | BEAVERLODGEL | 401 | 001 | 116 | | 92601 | 100 | | URANIUM, TOTAL |
| 615 | BEAVERLODGEL | 400 | 001 | 106 | | 86613 | 101 | | RADIUM-226, TOTAL |
| 615 | BEAVERLODGEL | 400 | 001 | 106 | | 82612 | 101 | | LEAD-210, TOTAL |
| 615 | BEAVERLODGEL | 400 | 001 | 106 | | 92601 | 101 | | URANIUM, TOTAL |
| 653 | BEAVERLODGEL | 1 | 001 | 101 | | 0 | 100 | | RADIUM-226, TOTAL |
| 653 | BEAVERLODGEL | 1 | 001 | 101 | | 0 | 100 | | LEAD-210, TOTAL |
| 653 | BEAVERLODGEL | 1 | 001 | 101 | | 0 | 100 | | URANIUM, TOTAL |
| 654 | BEAVERLODGEL | 2 | 001 | 102 | | 0 | 100 | | RADIUM-226, TOTAL |
| 654 | BEAVERLODGEL | 2 | 001 | 102 | | 0 | 100 | | LEAD-210, TOTAL |
| 654 | BEAVERLODGEL | 2 | 001 | 103 | | 0 | 100 | | URANIUM, TOTAL |
| 655 | BEAVERLODGEL | 4 | 001 | 101 | | 0 | 100 | | RADIUM-226, TOTAL |
| 655 | BEAVERLODGEL | 4 | 001 | 101 | | 0 | 100 | | LEAD-210, TOTAL |
| 655 | BEAVERLODGEL | 4 | 001 | 101 | | 0 | 100 | | URANIUM, TOTAL |
| 656 | BEAVERLODGEL | 5 | 001 | 102 | | 0 | 100 | | RADIUM-226, TOTAL |
| 656 | BEAVERLODGEL | 5 | 001 | 102 | | 0 | 100 | | LEAD-210, TOTAL |
| 656 | BEAVERLODGEL | 5 | 001 | 102 | | 0 | 100 | | URANIUM, TOTAL |
| 657 | BEAVERLODGEL | 6 | 001 | 103 | | 0 | 100 | | RADIUM-226, TOTAL |
| 657 | BEAVERLODGEL | 6 | 001 | 103 | | 0 | 100 | | URANIUM, TOTAL |

TABLEOB-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 5 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 5 | LEAD-210, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 5 | URANIUM, TOTAL | 231 | | 1.00000 | 1 | 45 | 4 | |
| 11 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 11 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 11 | URANIUM, TOTAL | 231 | | 1.00000 | 1 | 45 | 4 | |
| 14 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 14 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 14 | URANIUM, TOTAL | 231 | | 1.50000 | 1 | 45 | 4 | |
| 17 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 17 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 17 | URANIUM, TOTAL | 231 | | 0.80000 | 1 | 45 | 4 | |
| 18 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 18 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 18 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 21 | RADIUM-226, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 21 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 21 | URANIUM, TOTAL | 231 | | 0.70000 | 1 | 45 | 4 | |
| 22 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 22 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 22 | URANIUM, TOTAL | 231 | | 0.20000 | 1 | 45 | 4 | |
| 23 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 23 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 23 | URANIUM, TOTAL | 231 | | 0.60000 | 1 | 45 | 4 | |
| 26 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 26 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 26 | URANIUM, TOTAL | 231 | | 0.32000 | 2 | 45 | 4 | |
| 27 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 27 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 27 | URANIUM, TOTAL | 231 | < | 5.00000 | 0 | 45 | 4 | |
| 28 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 28 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 28 | URANIUM, TOTAL | 231 | | 0.50000 | 1 | 45 | 4 | |
| 31 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 31 | LEAD-210, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 31 | URANIUM, TOTAL | 231 | | 1.00000 | 1 | 45 | 4 | |
| 32 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 32 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 32 | URANIUM, TOTAL | 231 | | 0.60000 | 1 | 45 | 4 | |
| 35 | RADIUM-226, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 35 | LEAD-210, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 35 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 36 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 36 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 36 | URANIUM, TOTAL | 231 | | 0.45000 | 2 | 45 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 37 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 37 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 37 | URANIUM, TOTAL | 231 | | 0.60000 | 1 | 45 | 4 | |
| 40 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 40 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 40 | URANIUM, TOTAL | 231 | | 1.20000 | 1 | 45 | 4 | |
| 41 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 41 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 41 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 44 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 44 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 44 | URANIUM, TOTAL | 231 | < | 0.50000 | 1 | 45 | 4 | |
| 47 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 47 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 47 | URANIUM, TOTAL | 231 | | 5.00000 | 1 | 45 | 4 | |
| 52 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 52 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 52 | URANIUM, TOTAL | 231 | | 2.00000 | 1 | 45 | 4 | |
| 55 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 55 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 55 | URANIUM, TOTAL | 231 | | 0.50000 | 1 | 45 | 4 | |
| 56 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 56 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 56 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 59 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 59 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 59 | URANIUM, TOTAL | 231 | | 0.20000 | 1 | 45 | 4 | |
| 60 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 60 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 60 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 63 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 63 | LEAD-210, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 63 | URANIUM, TOTAL | 231 | | 0.70000 | 1 | 45 | 4 | |
| 64 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 64 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 64 | URANIUM, TOTAL | 231 | | 0.40000 | 1 | 45 | 4 | |
| 67 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 67 | LEAD-210, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 67 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 68 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 68 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 68 | URANIUM, TOTAL | 231 | | 0.30000 | 1 | 45 | 4 | |
| 71 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 71 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 71 | URANIUM, TOTAL | 231 | | 0.90000 | 1 | 45 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 72 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 72 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 72 | URANIUM, TOTAL | 231 | | 0.30000 | 1 | 45 | 4 | |
| 75 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 75 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 75 | URANIUM, TOTAL | 231 | | 0.50000 | 1 | 45 | 4 | |
| 76 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 76 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 76 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 79 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 79 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 79 | URANIUM, TOTAL | 231 | | 0.80000 | 1 | 45 | 4 | |
| 80 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 80 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 80 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 83 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 83 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 83 | URANIUM, TOTAL | 231 | | 0.70000 | 1 | 45 | 4 | |
| 84 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 84 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 84 | URANIUM, TOTAL | 231 | | 1.30000 | 1 | 45 | 4 | |
| 87 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 87 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 87 | URANIUM, TOTAL | 231 | | 0.70000 | 1 | 45 | 4 | |
| 90 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 90 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 90 | URANIUM, TOTAL | 231 | | 0.90000 | 1 | 45 | 4 | |
| 93 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 93 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 93 | URANIUM, TOTAL | 231 | | 0.90000 | 1 | 45 | 4 | |
| 96 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 96 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 96 | URANIUM, TOTAL | 231 | | 1.00000 | 1 | 45 | 4 | |
| 99 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 99 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 99 | URANIUM, TOTAL | 231 | | 1.50000 | 1 | 45 | 4 | |
| 102 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 102 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 102 | URANIUM, TOTAL | 231 | | 2.40000 | 1 | 45 | 4 | |
| 105 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 105 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 105 | URANIUM, TOTAL | 231 | | 1.10000 | 1 | 45 | 4 | |
| 106 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 106 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 106 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 107 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 107 | URANIUM, TOTAL | 231 | | 0.46000 | 2 | 45 | 4 | |
| 110 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 110 | LEAD-210, TOTAL | 231 | < | 0.19000 | 2 | 83 | 4 | |
| 110 | URANIUM, TOTAL | 231 | < | 0.50000 | 1 | 45 | 4 | |
| 111 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 111 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 111 | URANIUM, TOTAL | 231 | < | 0.50000 | 1 | 45 | 4 | |
| 114 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 114 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 114 | URANIUM, TOTAL | 231 | | 15.00000 | 0 | 45 | 4 | |
| 115 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 115 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 115 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 118 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 118 | LEAD-210, TOTAL | 231 | < | 0.07000 | 2 | 83 | 4 | |
| 118 | URANIUM, TOTAL | 231 | < | 0.50000 | 1 | 45 | 4 | |
| 119 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 119 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 119 | URANIUM, TOTAL | 231 | | 0.28000 | 1 | 45 | 4 | |
| 122 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 122 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 122 | URANIUM, TOTAL | 231 | | 0.90000 | 1 | 45 | 4 | |
| 123 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 123 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 123 | URANIUM, TOTAL | 231 | | 1.10000 | 1 | 45 | 4 | |
| 126 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 126 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 126 | URANIUM, TOTAL | 231 | | 0.49000 | 2 | 45 | 4 | |
| 127 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 127 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 128 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 128 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 128 | URANIUM, TOTAL | 231 | < | 0.50000 | 1 | 45 | 4 | |
| 131 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 131 | LEAD-210, TOTAL | 231 | | 0.13000 | 2 | 83 | 4 | |
| 131 | URANIUM, TOTAL | 231 | | 1.10000 | 1 | 45 | 4 | |
| 132 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 132 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 132 | URANIUM, TOTAL | 231 | | 1.00000 | 1 | 45 | 4 | |
| 133 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 133 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 133 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 136 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 136 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 136 | URANIUM, TOTAL | 231 | | 0.96000 | 2 | 45 | 4 | |
| 137 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 137 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 137 | URANIUM, TOTAL | 231 | | 0.40000 | 1 | 45 | 4 | |
| 138 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 138 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 138 | URANIUM, TOTAL | 231 | | 0.80000 | 1 | 45 | 4 | |
| 141 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 141 | LEAD-210, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 141 | URANIUM, TOTAL | 231 | | 1.60000 | 1 | 45 | 4 | |
| 142 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 142 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 142 | URANIUM, TOTAL | 231 | | 0.90000 | 1 | 45 | 4 | |
| 145 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 145 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 145 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 146 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 146 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 146 | URANIUM, TOTAL | 231 | | 2.10000 | 1 | 45 | 4 | |
| 149 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 149 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 149 | URANIUM, TOTAL | 231 | | 0.90000 | 1 | 45 | 4 | |
| 150 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 150 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 150 | URANIUM, TOTAL | 231 | | 1.00000 | 1 | 45 | 4 | |
| 153 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 153 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 153 | URANIUM, TOTAL | 231 | | 0.50000 | 1 | 45 | 4 | |
| 154 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 154 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 154 | URANIUM, TOTAL | 231 | | 1.50000 | 1 | 45 | 4 | |
| 157 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 157 | LEAD-210, TOTAL | 231 | < | 0.07000 | 2 | 83 | 4 | |
| 157 | URANIUM, TOTAL | 231 | | 1.20000 | 1 | 45 | 4 | |
| 158 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 158 | LEAD-210, TOTAL | 231 | < | 0.07000 | 2 | 83 | 4 | |
| 158 | URANIUM, TOTAL | 231 | | 2.20000 | 1 | 45 | 4 | |
| 161 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 161 | LEAD-210, TOTAL | 231 | < | 0.07000 | 2 | 83 | 4 | |
| 161 | URANIUM, TOTAL | 231 | | 0.67000 | 2 | 45 | 4 | |
| 164 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 164 | LEAD-210, TOTAL | 231 | < | 0.07000 | 2 | 83 | 4 | |
| 164 | URANIUM, TOTAL | 231 | | 0.20000 | 1 | 45 | 4 | |
| 165 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 165 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | *02. SOURCE CODE | *06. LESS THAN | 1102. VALUE | *07. PRECISION | 1103. UNITS | *08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 165 | URANIUM, TOTAL | 231 | | 0.69000 | 2 | 45 | 4 | |
| 166 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 166 | URANIUM, TOTAL | 231 | | 0.87000 | 2 | 45 | 4 | |
| 169 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 169 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 169 | URANIUM, TOTAL | 231 | | 0.55000 | 2 | 45 | 4 | |
| 170 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 170 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 170 | URANIUM, TOTAL | 231 | | 0.30000 | 2 | 45 | 4 | |
| 171 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 171 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 171 | URANIUM, TOTAL | 231 | | 0.52000 | 2 | 45 | 4 | |
| 174 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 174 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 174 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 175 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 175 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 175 | URANIUM, TOTAL | 231 | | 8.00000 | 0 | 45 | 4 | |
| 176 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 176 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 176 | URANIUM, TOTAL | 231 | | 0.40000 | 1 | 45 | 4 | |
| 179 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 179 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 179 | URANIUM, TOTAL | 231 | | 1.00000 | 2 | 45 | 4 | |
| 182 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 182 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 182 | URANIUM, TOTAL | 231 | | 1.40000 | 2 | 45 | 4 | |
| 183 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 183 | LEAD-210, TOTAL | 231 | < | 0.19000 | 2 | 83 | 4 | |
| 183 | URANIUM, TOTAL | 231 | | 2.10000 | 2 | 45 | 4 | |
| 186 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 186 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 186 | URANIUM, TOTAL | 231 | | 0.57000 | 2 | 45 | 4 | |
| 187 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 187 | LEAD-210, TOTAL | 231 | < | 0.19000 | 2 | 83 | 4 | |
| 187 | URANIUM, TOTAL | 231 | | 0.97000 | 2 | 45 | 4 | |
| 190 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 190 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 190 | URANIUM, TOTAL | 231 | < | 0.20000 | 2 | 45 | 4 | |
| 191 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 191 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 191 | URANIUM, TOTAL | 231 | | 0.57000 | 2 | 45 | 4 | |
| 192 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 192 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 192 | URANIUM, TOTAL | 231 | | 0.82000 | 2 | 45 | 4 | |

TABLE09-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | *02. SOURCE CODE | *06. LESS THAN | 1102. VALUE | *07. PRECISION | 1103. UNITS | *08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 195 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 195 | LEAD-210, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 195 | URANIUM, TOTAL | 231 | | 0.61000 | 2 | 45 | 4 | |
| 196 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 196 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 196 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 197 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 197 | LEAD-210, TOTAL | 231 | < | 0.19000 | 2 | 83 | 4 | |
| 197 | URANIUM, TOTAL | 231 | | 0.61000 | 2 | 45 | 4 | |
| 200 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 200 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 200 | URANIUM, TOTAL | 231 | | 1.30000 | 1 | 45 | 4 | |
| 201 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 201 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 201 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 202 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 202 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 205 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 205 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 205 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 206 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 206 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 206 | URANIUM, TOTAL | 231 | | 0.60000 | 1 | 45 | 4 | |
| 212 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 212 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 212 | URANIUM, TOTAL | 231 | | 0.98000 | 2 | 45 | 4 | |
| 215 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 215 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 215 | URANIUM, TOTAL | 231 | | 1.70000 | 1 | 45 | 4 | |
| 218 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 218 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 218 | URANIUM, TOTAL | 231 | | 2.80000 | 1 | 83 | 4 | |
| 221 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 221 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 221 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 222 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 222 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 222 | URANIUM, TOTAL | 231 | | 0.80000 | 1 | 45 | 4 | |
| 223 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 223 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 223 | URANIUM, TOTAL | 231 | | 0.90000 | 1 | 45 | 4 | |
| 226 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 226 | LEAD-210, TOTAL | 231 | < | 0.19000 | 2 | 83 | 4 | |
| 226 | URANIUM, TOTAL | 231 | | 0.24000 | 2 | 45 | 4 | |
| 227 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | *02. SOURCE CODE | *06. LESS THAN | 1102. VALUE | *07. PRECISION | 1103. UNITS | *08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 227 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 227 | URANIUM, TOTAL | 231 | | 0.80000 | 1 | 45 | 4 | |
| 228 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 228 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 228 | URANIUM, TOTAL | 231 | | 0.50000 | 1 | 45 | 4 | |
| 231 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 231 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 231 | URANIUM, TOTAL | 231 | | 0.30000 | 1 | 45 | 4 | |
| 232 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 232 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 232 | URANIUM, TOTAL | 231 | | 1.00000 | 1 | 45 | 4 | |
| 235 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 235 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 235 | URANIUM, TOTAL | 231 | | 1.00000 | 1 | 45 | 4 | |
| 241 | RADIUM-226, TOTAL | 231 | | 0.18000 | 2 | 83 | 4 | |
| 241 | LEAD-210, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 241 | URANIUM, TOTAL | 231 | | 66.00000 | 0 | 45 | 4 | |
| 242 | RADIUM-226, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 242 | LEAD-210, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 242 | URANIUM, TOTAL | 231 | | 64.00000 | 0 | 45 | 4 | |
| 243 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 243 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 243 | URANIUM, TOTAL | 231 | | 3.30000 | 1 | 45 | 4 | |
| 246 | RADIUM-226, TOTAL | 231 | | 0.17000 | 2 | 83 | 4 | |
| 246 | LEAD-210, TOTAL | 231 | < | 0.04000 | 2 | 83 | 4 | |
| 246 | URANIUM, TOTAL | 231 | | 11.70000 | 1 | 45 | 4 | |
| 252 | RADIUM-226, TOTAL | 231 | | 0.56000 | 2 | 83 | 4 | |
| 252 | LEAD-210, TOTAL | 231 | | 0.20000 | 2 | 83 | 4 | |
| 252 | URANIUM, TOTAL | 231 | | 73.00000 | 0 | 45 | 4 | |
| 254 | RADIUM-226, TOTAL | 231 | | 0.31000 | 2 | 83 | 4 | |
| 254 | LEAD-210, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 254 | URANIUM, TOTAL | 231 | | 34.00000 | 0 | 45 | 4 | |
| 256 | RADIUM-226, TOTAL | 231 | | 0.41000 | 2 | 83 | 4 | |
| 256 | LEAD-210, TOTAL | 231 | | 0.28000 | 2 | 83 | 4 | |
| 256 | URANIUM, TOTAL | 231 | | 87.00000 | 0 | 45 | 4 | |
| 258 | RADIUM-226, TOTAL | 231 | | 0.29000 | 2 | 83 | 4 | |
| 258 | LEAD-210, TOTAL | 231 | | 0.24000 | 2 | 83 | 4 | |
| 258 | URANIUM, TOTAL | 231 | | 88.00000 | 0 | 45 | 4 | |
| 260 | RADIUM-226, TOTAL | 231 | | 0.40000 | 2 | 83 | 4 | |
| 260 | LEAD-210, TOTAL | 231 | | 0.30000 | 2 | 83 | 4 | |
| 260 | URANIUM, TOTAL | 231 | | 126.00000 | 0 | 45 | 4 | |
| 262 | RADIUM-226, TOTAL | 231 | | 0.09000 | 2 | 83 | 4 | |
| 262 | LEAD-210, TOTAL | 231 | | 0.11000 | 2 | 83 | 4 | |
| 262 | URANIUM, TOTAL | 231 | | 3.00000 | 0 | 45 | 4 | |
| 263 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |

TABLE0B-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #0B. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 263 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 263 | URANIUM, TOTAL | 231 | | 26.00000 | 0 | 45 | 4 | |
| 264 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 264 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 264 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 266 | RADIUM-226, TOTAL | 231 | | 0.35000 | 2 | 83 | 4 | |
| 266 | LEAD-210, TOTAL | 231 | | 0.09000 | 2 | 83 | 4 | |
| 266 | URANIUM, TOTAL | 231 | | 37.00000 | 0 | 45 | 4 | |
| 267 | RADIUM-226, TOTAL | 231 | | 0.28000 | 2 | 83 | 4 | |
| 267 | LEAD-210, TOTAL | 231 | | 0.12000 | 2 | 83 | 4 | |
| 267 | URANIUM, TOTAL | 231 | | 47.00000 | 0 | 45 | 4 | |
| 269 | RADIUM-226, TOTAL | 231 | | 0.56000 | 2 | 83 | 4 | |
| 269 | LEAD-210, TOTAL | 231 | | 0.19000 | 2 | 83 | 4 | |
| 269 | URANIUM, TOTAL | 231 | | 14.00000 | 0 | 45 | 4 | |
| 270 | RADIUM-226, TOTAL | 231 | | 0.47000 | 2 | 83 | 4 | |
| 270 | LEAD-210, TOTAL | 231 | | 0.17000 | 2 | 83 | 4 | |
| 270 | URANIUM, TOTAL | 231 | | 16.00000 | 1 | 45 | 4 | |
| 272 | RADIUM-226, TOTAL | 231 | | 0.18000 | 2 | 83 | 4 | |
| 272 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 272 | URANIUM, TOTAL | 231 | | 22.00000 | 0 | 45 | 4 | |
| 273 | RADIUM-226, TOTAL | 231 | | 0.19000 | 2 | 83 | 4 | |
| 273 | LEAD-210, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 273 | URANIUM, TOTAL | 231 | | 21.00000 | 0 | 45 | 4 | |
| 275 | RADIUM-226, TOTAL | 231 | | 0.63000 | 2 | 83 | 4 | |
| 275 | LEAD-210, TOTAL | 231 | | 0.19000 | 2 | 83 | 4 | |
| 275 | URANIUM, TOTAL | 231 | | 19.00000 | 0 | 45 | 4 | |
| 276 | RADIUM-226, TOTAL | 231 | | 0.58000 | 2 | 83 | 4 | |
| 276 | LEAD-210, TOTAL | 231 | | 0.14000 | 2 | 83 | 4 | |
| 276 | URANIUM, TOTAL | 231 | | 57.00000 | 0 | 45 | 4 | |
| 278 | RADIUM-226, TOTAL | 231 | | 0.17000 | 2 | 83 | 4 | |
| 278 | LEAD-210, TOTAL | 231 | | 0.16000 | 2 | 83 | 4 | |
| 278 | URANIUM, TOTAL | 231 | | 9.00000 | 0 | 45 | 4 | |
| 279 | RADIUM-226, TOTAL | 231 | | 0.11000 | 2 | 83 | 4 | |
| 279 | LEAD-210, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 279 | URANIUM, TOTAL | 231 | | 59.00000 | 0 | 45 | 4 | |
| 280 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 280 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 280 | URANIUM, TOTAL | 231 | | 0.30000 | 1 | 45 | 4 | |
| 282 | RADIUM-226, TOTAL | 231 | | 0.13000 | 2 | 83 | 4 | |
| 282 | LEAD-210, TOTAL | 231 | | 0.13000 | 2 | 83 | 4 | |
| 282 | URANIUM, TOTAL | 231 | | 54.00000 | 0 | 45 | 4 | |
| 283 | RADIUM-226, TOTAL | 231 | | 0.11000 | 2 | 83 | 4 | |
| 283 | LEAD-210, TOTAL | 231 | | 0.22000 | 2 | 83 | 4 | |
| 283 | URANIUM, TOTAL | 231 | | 67.00000 | 0 | 45 | 4 | |
| 284 | RADIUM-226, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 284 | LEAD-210, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 284 | URANIUM, TOTAL | 231 | | 0.50000 | 1 | 45 | 4 | |
| 286 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 286 | LEAD-210, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 286 | URANIUM, TOTAL | 231 | | 45.00000 | 0 | 45 | 4 | |
| 287 | RADIUM-226, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 287 | LEAD-210, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 287 | URANIUM, TOTAL | 231 | | 49.00000 | 0 | 45 | 4 | |
| 288 | URANIUM, TOTAL | 231 | | 3.90000 | 1 | 45 | 4 | |
| 290 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 290 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 290 | URANIUM, TOTAL | 231 | | 5.00000 | 1 | 45 | 4 | |
| 292 | RADIUM-226, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 292 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 292 | URANIUM, TOTAL | 231 | | 17.00000 | 0 | 45 | 4 | |
| 293 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 293 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 293 | URANIUM, TOTAL | 231 | | 11.00000 | 0 | 45 | 4 | |
| 294 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 294 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 294 | URANIUM, TOTAL | 231 | | 2.00000 | 1 | 45 | 4 | |
| 297 | RADIUM-226, TOTAL | 231 | | 0.16000 | 2 | 83 | 4 | |
| 297 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 297 | URANIUM, TOTAL | 231 | | 0.63000 | 2 | 45 | 4 | |
| 298 | RADIUM-226, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 298 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 298 | URANIUM, TOTAL | 231 | | 16.00000 | 0 | 45 | 4 | |
| 299 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 299 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 299 | URANIUM, TOTAL | 231 | | 2.10000 | 1 | 45 | 4 | |
| 302 | RADIUM-226, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 302 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 302 | URANIUM, TOTAL | 231 | | 6.00000 | 1 | 45 | 4 | |
| 303 | RADIUM-226, TOTAL | 231 | | 0.19000 | 2 | 83 | 4 | |
| 303 | LEAD-210, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 303 | URANIUM, TOTAL | 231 | | 28.00000 | 0 | 45 | 4 | |
| 306 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 306 | LEAD-210, TOTAL | 231 | | 0.32000 | 2 | 83 | 4 | |
| 306 | URANIUM, TOTAL | 231 | | 7.80000 | 1 | 45 | 4 | |
| 307 | RADIUM-226, TOTAL | 231 | | 0.62000 | 2 | 83 | 4 | |
| 307 | LEAD-210, TOTAL | 231 | | 0.29000 | 2 | 83 | 4 | |
| 307 | URANIUM, TOTAL | 231 | | 53.00000 | 0 | 45 | 4 | |
| 308 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 308 | LEAD-210, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 308 | URANIUM, TOTAL | 231 | | 3.10000 | 1 | 45 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 311 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 311 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 311 | URANIUM, TOTAL | 231 | | 19.00000 | 0 | 45 | 4 | |
| 314 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 314 | LEAD-210, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 314 | URANIUM, TOTAL | 231 | | 2.00000 | 1 | 45 | 4 | |
| 315 | RADIUM-226, TOTAL | 231 | | 0.12000 | 2 | 83 | 4 | |
| 315 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 315 | URANIUM, TOTAL | 231 | | 21.00000 | 0 | 45 | 4 | |
| 318 | RADIUM-226, TOTAL | 231 | | 0.33000 | 2 | 83 | 4 | |
| 318 | LEAD-210, TOTAL | 231 | | 0.15000 | 2 | 83 | 4 | |
| 318 | URANIUM, TOTAL | 231 | | 4.00000 | 1 | 45 | 4 | |
| 319 | RADIUM-226, TOTAL | 231 | | 0.41000 | 2 | 83 | 4 | |
| 319 | LEAD-210, TOTAL | 231 | | 0.15000 | 2 | 83 | 4 | |
| 319 | URANIUM, TOTAL | 231 | | 44.00000 | 0 | 45 | 4 | |
| 325 | RADIUM-226, TOTAL | 231 | | 0.17000 | 2 | 83 | 4 | |
| 325 | LEAD-210, TOTAL | 231 | | 0.16000 | 2 | 83 | 4 | |
| 325 | URANIUM, TOTAL | 231 | | 24.00000 | 0 | 45 | 4 | |
| 327 | RADIUM-226, TOTAL | 231 | | 0.30000 | 2 | 83 | 4 | |
| 327 | LEAD-210, TOTAL | 231 | | 0.34000 | 2 | 83 | 4 | |
| 327 | URANIUM, TOTAL | 231 | | 49.00000 | 0 | 45 | 4 | |
| 328 | RADIUM-226, TOTAL | 231 | | 0.21000 | 2 | 83 | 4 | |
| 328 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 328 | URANIUM, TOTAL | 231 | | 30.00000 | 0 | 45 | 4 | |
| 329 | RADIUM-226, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 329 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 329 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 331 | RADIUM-226, TOTAL | 231 | | 0.11000 | 2 | 83 | 4 | |
| 331 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 331 | URANIUM, TOTAL | 231 | | 29.00000 | 0 | 45 | 4 | |
| 332 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 332 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 332 | URANIUM, TOTAL | 231 | | 27.00000 | 0 | 45 | 4 | |
| 333 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 333 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 333 | URANIUM, TOTAL | 231 | | 2.20000 | 1 | 45 | 4 | |
| 335 | RADIUM-226, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 335 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 335 | URANIUM, TOTAL | 231 | | 21.00000 | 0 | 45 | 4 | |
| 336 | RADIUM-226, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 336 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 336 | URANIUM, TOTAL | 231 | | 51.00000 | 0 | 45 | 4 | |
| 337 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 337 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 337 | URANIUM, TOTAL | 231 | | 0.50000 | 1 | 45 | 4 | |

TABLE0B-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 339 | RADIUM-226, TOTAL | 231 | | 0.24000 | 2 | 83 | 4 | |
| 339 | LEAD-210, TOTAL | 231 | | 0.20000 | 2 | 83 | 4 | |
| 339 | URANIUM, TOTAL | 231 | | 20.00000 | 0 | 45 | 4 | |
| 340 | RADIUM-226, TOTAL | 231 | | 0.17000 | 2 | 83 | 4 | |
| 340 | LEAD-210, TOTAL | 231 | | 0.17000 | 2 | 83 | 4 | |
| 340 | URANIUM, TOTAL | 231 | | 104.00000 | 0 | 45 | 4 | |
| 341 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 341 | LEAD-210, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 341 | URANIUM, TOTAL | 231 | | 15.00000 | 0 | 45 | 4 | |
| 343 | RADIUM-226, TOTAL | 231 | | 0.18000 | 2 | 83 | 4 | |
| 343 | LEAD-210, TOTAL | 231 | | 0.15000 | 2 | 83 | 4 | |
| 343 | URANIUM, TOTAL | 231 | | 78.00000 | 0 | 45 | 4 | |
| 344 | RADIUM-226, TOTAL | 231 | | 0.12000 | 2 | 83 | 4 | |
| 344 | LEAD-210, TOTAL | 231 | | 0.09000 | 2 | 83 | 4 | |
| 344 | URANIUM, TOTAL | 231 | | 58.00000 | 0 | 45 | 4 | |
| 345 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 345 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 345 | URANIUM, TOTAL | 231 | | 5.90000 | 1 | 45 | 4 | |
| 348 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 348 | LEAD-210, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 348 | URANIUM, TOTAL | 231 | | 4.60000 | 1 | 45 | 4 | |
| 349 | RADIUM-226, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 349 | LEAD-210, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 349 | URANIUM, TOTAL | 231 | | 4.30000 | 1 | 45 | 4 | |
| 350 | RADIUM-226, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 350 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 350 | URANIUM, TOTAL | 231 | | 10.50000 | 1 | 45 | 4 | |
| 351 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 351 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 351 | URANIUM, TOTAL | 231 | | 3.00000 | 1 | 45 | 4 | |
| 352 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 352 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 352 | URANIUM, TOTAL | 231 | | 0.57000 | 2 | 45 | 4 | |
| 354 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 354 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 354 | URANIUM, TOTAL | 231 | | 21.00000 | 0 | 45 | 4 | |
| 355 | RADIUM-226, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 355 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 355 | URANIUM, TOTAL | 231 | | 24.00000 | 0 | 45 | 4 | |
| 357 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 357 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 357 | URANIUM, TOTAL | 231 | | 7.10000 | 1 | 45 | 4 | |
| 358 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 358 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 358 | URANIUM, TOTAL | 231 | | 3.80000 | 1 | 45 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 360 | RADIUM-226, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 360 | LEAD-210, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 360 | URANIUM, TOTAL | 231 | | 19.00000 | 0 | 45 | 4 | |
| 361 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 361 | LEAD-210, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 361 | URANIUM, TOTAL | 231 | | 31.00000 | 0 | 45 | 4 | |
| 363 | RADIUM-226, TOTAL | 231 | | 0.11000 | 2 | 83 | 4 | |
| 363 | LEAD-210, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 363 | URANIUM, TOTAL | 231 | | 45.00000 | 0 | 45 | 4 | |
| 364 | RADIUM-226, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 364 | LEAD-210, TOTAL | 231 | | 0.09000 | 2 | 83 | 4 | |
| 364 | URANIUM, TOTAL | 231 | | 49.00000 | 0 | 45 | 4 | |
| 365 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 365 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 365 | URANIUM, TOTAL | 231 | | 7.80000 | 1 | 45 | 4 | |
| 367 | RADIUM-226, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 367 | LEAD-210, TOTAL | 231 | | 0.13000 | 2 | 83 | 4 | |
| 367 | URANIUM, TOTAL | 231 | | 27.00000 | 0 | 45 | 4 | |
| 368 | RADIUM-226, TOTAL | 231 | | 0.20000 | 2 | 83 | 4 | |
| 368 | LEAD-210, TOTAL | 231 | | 0.19000 | 2 | 83 | 4 | |
| 368 | URANIUM, TOTAL | 231 | | 96.00000 | 0 | 45 | 4 | |
| 370 | RADIUM-226, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 370 | LEAD-210, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 370 | URANIUM, TOTAL | 231 | | 33.00000 | 0 | 45 | 4 | |
| 372 | RADIUM-226, TOTAL | 231 | | 0.25000 | 2 | 83 | 4 | |
| 372 | LEAD-210, TOTAL | 231 | | 0.15000 | 2 | 83 | 4 | |
| 372 | URANIUM, TOTAL | 231 | | 98.00000 | 0 | 45 | 4 | |
| 375 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 375 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 375 | URANIUM, TOTAL | 231 | | 7.40000 | 1 | 45 | 4 | |
| 376 | RADIUM-226, TOTAL | 231 | | 0.19000 | 2 | 83 | 4 | |
| 376 | LEAD-210, TOTAL | 231 | | 0.24000 | 2 | 83 | 4 | |
| 376 | URANIUM, TOTAL | 231 | | 101.00000 | 0 | 45 | 4 | |
| 378 | RADIUM-226, TOTAL | 231 | | 0.16000 | 2 | 83 | 4 | |
| 378 | LEAD-210, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 378 | URANIUM, TOTAL | 231 | | 16.00000 | 0 | 45 | 4 | |
| 379 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 379 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 379 | URANIUM, TOTAL | 231 | | 8.00000 | 0 | 45 | 4 | |
| 381 | RADIUM-226, TOTAL | 231 | | 0.19000 | 2 | 83 | 4 | |
| 381 | LEAD-210, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 381 | URANIUM, TOTAL | 231 | | 78.00000 | 0 | 45 | 4 | |
| 382 | RADIUM-226, TOTAL | 231 | | 0.16000 | 2 | 83 | 4 | |
| 382 | LEAD-210, TOTAL | 231 | | 0.13000 | 2 | 83 | 4 | |
| 382 | URANIUM, TOTAL | 231 | | 14.00000 | 0 | 45 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 383 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | | 83 | 4 |
| 383 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | | 83 | 4 |
| 383 | URANIUM, TOTAL | 231 | | 7.40000 | 1 | | 45 | 4 |
| 385 | RADIUM-226, TOTAL | 231 | | 0.14000 | 2 | | 83 | 4 |
| 385 | LEAD-210, TOTAL | 231 | | 0.16000 | 2 | | 83 | 4 |
| 385 | URANIUM, TOTAL | 231 | | 72.00000 | 0 | | 45 | 4 |
| 386 | RADIUM-226, TOTAL | 231 | | 0.13000 | 2 | | 83 | 4 |
| 386 | LEAD-210, TOTAL | 231 | | 0.19000 | 2 | | 83 | 4 |
| 386 | URANIUM, TOTAL | 231 | | 56.00000 | 0 | | 45 | 4 |
| 387 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | | 83 | 4 |
| 387 | LEAD-210, TOTAL | 231 | | 0.06000 | 2 | | 83 | 4 |
| 387 | URANIUM, TOTAL | 231 | | 53.00000 | 0 | | 45 | 4 |
| 389 | RADIUM-226, TOTAL | 231 | | 0.16000 | 2 | | 83 | 4 |
| 389 | LEAD-210, TOTAL | 231 | | 0.11000 | 2 | | 83 | 4 |
| 389 | URANIUM, TOTAL | 231 | | 10.80000 | 1 | | 45 | 4 |
| 390 | RADIUM-226, TOTAL | 231 | | 0.14000 | 2 | | 83 | 4 |
| 390 | LEAD-210, TOTAL | 231 | | 0.13000 | 2 | | 83 | 4 |
| 390 | URANIUM, TOTAL | 231 | | 120.00000 | 0 | | 45 | 4 |
| 391 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | | 83 | 4 |
| 391 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | | 83 | 4 |
| 391 | URANIUM, TOTAL | 231 | | 10.60000 | 1 | | 45 | 4 |
| 393 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | | 83 | 4 |
| 393 | LEAD-210, TOTAL | 231 | | 0.08000 | 2 | | 83 | 4 |
| 393 | URANIUM, TOTAL | 231 | | 4.10000 | 1 | | 45 | 4 |
| 394 | RADIUM-226, TOTAL | 231 | | 0.03000 | 2 | | 83 | 4 |
| 394 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | | 83 | 4 |
| 394 | URANIUM, TOTAL | 231 | | 2.00000 | 1 | | 45 | 4 |
| 395 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | | 83 | 4 |
| 395 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | | 83 | 4 |
| 395 | URANIUM, TOTAL | 231 | < | 0.50000 | 1 | | 45 | 4 |
| 401 | RADIUM-226, TOTAL | 231 | | 0.47000 | 2 | | 83 | 4 |
| 401 | LEAD-210, TOTAL | 231 | | 0.13000 | 2 | | 83 | 4 |
| 401 | URANIUM, TOTAL | 231 | | 46.00000 | 0 | | 45 | 4 |
| 403 | RADIUM-226, TOTAL | 231 | | 0.25000 | 2 | | 83 | 4 |
| 403 | LEAD-210, TOTAL | 231 | | 0.13000 | 2 | | 83 | 4 |
| 403 | URANIUM, TOTAL | 231 | | 41.00000 | 0 | | 45 | 4 |
| 404 | RADIUM-226, TOTAL | 231 | | 0.14000 | 2 | | 83 | 4 |
| 404 | LEAD-210, TOTAL | 231 | | 0.12000 | 2 | | 83 | 4 |
| 404 | URANIUM, TOTAL | 231 | | 45.00000 | 0 | | 45 | 4 |
| 405 | RADIUM-226, TOTAL | 231 | | 0.03000 | 2 | | 83 | 4 |
| 405 | LEAD-210, TOTAL | 231 | | 0.09000 | 2 | | 83 | 4 |
| 405 | URANIUM, TOTAL | 231 | | 1.10000 | 1 | | 45 | 4 |
| 407 | RADIUM-226, TOTAL | 231 | | 0.18000 | 2 | | 83 | 4 |
| 407 | LEAD-210, TOTAL | 231 | | 0.10000 | 2 | | 83 | 4 |
| 407 | URANIUM, TOTAL | 231 | | 31.00000 | 0 | | 45 | 4 |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 408 | RADIUM-226, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 408 | LEAD-210, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 408 | URANIUM, TOTAL | 231 | | 22.00000 | 0 | 45 | 4 | |
| 409 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 409 | LEAD-210, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 409 | URANIUM, TOTAL | 231 | | 4.70000 | 1 | 45 | 4 | |
| 412 | RADIUM-226, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 412 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 412 | URANIUM, TOTAL | 231 | | 52.00000 | 1 | 45 | 4 | |
| 413 | RADIUM-226, TOTAL | 231 | | 0.09000 | 2 | 83 | 4 | |
| 413 | LEAD-210, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 413 | URANIUM, TOTAL | 231 | | 92.00000 | 0 | 45 | 4 | |
| 414 | RADIUM-226, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 414 | LEAD-210, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 414 | URANIUM, TOTAL | 231 | | 33.00000 | 0 | 45 | 4 | |
| 415 | RADIUM-226, TOTAL | 231 | | 0.12000 | 2 | 83 | 4 | |
| 415 | LEAD-210, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 415 | URANIUM, TOTAL | 231 | | 48.00000 | 0 | 45 | 4 | |
| 417 | RADIUM-226, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 417 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 417 | URANIUM, TOTAL | 231 | | 42.00000 | 0 | 45 | 4 | |
| 418 | RADIUM-226, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 418 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 418 | URANIUM, TOTAL | 231 | | 29.00000 | 0 | 45 | 4 | |
| 419 | RADIUM-226, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 419 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 419 | URANIUM, TOTAL | 231 | | 5.40000 | 1 | 45 | 4 | |
| 421 | RADIUM-226, TOTAL | 231 | | 0.35000 | 2 | 83 | 4 | |
| 421 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 421 | URANIUM, TOTAL | 231 | | 11.70000 | 1 | 45 | 4 | |
| 422 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 422 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 422 | URANIUM, TOTAL | 231 | | 11.90000 | 1 | 45 | 4 | |
| 423 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 423 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 423 | URANIUM, TOTAL | 231 | | 5.90000 | 1 | 45 | 4 | |
| 429 | RADIUM-226, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 429 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 429 | URANIUM, TOTAL | 231 | | 4.90000 | 1 | 45 | 4 | |
| 431 | RADIUM-226, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 431 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 431 | URANIUM, TOTAL | 231 | | 24.00000 | 0 | 45 | 4 | |
| 432 | RADIUM-226, TOTAL | 231 | | 0.11000 | 2 | 83 | 4 | |
| 432 | LEAD-210, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 432 | URANIUM, TOTAL | 231 | | 60.00000 | 0 | 45 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 434 | RADIUM-226, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 434 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 434 | URANIUM, TOTAL | 231 | | 29.00000 | 0 | 45 | 4 | |
| 435 | RADIUM-226, TOTAL | 231 | | 0.15000 | 2 | 83 | 4 | |
| 435 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 435 | URANIUM, TOTAL | 231 | | 76.00000 | 0 | 45 | 4 | |
| 437 | RADIUM-226, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 437 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 437 | URANIUM, TOTAL | 231 | | 2.00000 | 0 | 45 | 4 | |
| 438 | RADIUM-226, TOTAL | 231 | | 0.09000 | 2 | 83 | 4 | |
| 438 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 438 | URANIUM, TOTAL | 231 | | 21.00000 | 0 | 45 | 4 | |
| 440 | RADIUM-226, TOTAL | 231 | | 0.18000 | 2 | 83 | 4 | |
| 440 | LEAD-210, TOTAL | 231 | | 0.16000 | 2 | 83 | 4 | |
| 440 | URANIUM, TOTAL | 231 | | 126.00000 | 0 | 45 | 4 | |
| 441 | RADIUM-226, TOTAL | 231 | | 0.14000 | 2 | 83 | 4 | |
| 441 | LEAD-210, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 441 | URANIUM, TOTAL | 231 | | 109.00000 | 0 | 45 | 4 | |
| 442 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 442 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 442 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 444 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 444 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 444 | URANIUM, TOTAL | 231 | | 9.00000 | 0 | 45 | 4 | |
| 445 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 445 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 445 | URANIUM, TOTAL | 231 | | 3.50000 | 1 | 45 | 4 | |
| 446 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 446 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 446 | URANIUM, TOTAL | 231 | | 0.70000 | 1 | 45 | 4 | |
| 448 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 448 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 448 | URANIUM, TOTAL | 231 | | 2.00000 | 1 | 45 | 4 | |
| 449 | RADIUM-226, TOTAL | 231 | | 0.11000 | 2 | 83 | 4 | |
| 449 | LEAD-210, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 449 | URANIUM, TOTAL | 231 | | 19.00000 | 0 | 45 | 4 | |
| 451 | RADIUM-226, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 451 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 451 | URANIUM, TOTAL | 231 | | 13.00000 | 0 | 45 | 4 | |
| 452 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 452 | LEAD-210, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 452 | URANIUM, TOTAL | 231 | | 28.00000 | 0 | 45 | 4 | |
| 454 | RADIUM-226, TOTAL | 231 | | 0.20000 | 2 | 83 | 4 | |
| 454 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 454 | URANIUM, TOTAL | 231 | | 25.00000 | 0 | 45 | 4 | |

TABLE0B-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 455 | RADIUM-226, TOTAL | 231 | | 0.17000 | 2 | 83 | 4 | |
| 455 | LEAD-210, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 455 | URANIUM, TOTAL | 231 | | 42.00000 | 0 | 45 | 4 | |
| 457 | RADIUM-226, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 457 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 457 | URANIUM, TOTAL | 231 | | 7.10000 | 1 | 45 | 4 | |
| 458 | RADIUM-226, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 458 | LEAD-210, TOTAL | 231 | | 0.13000 | 2 | 83 | 4 | |
| 458 | URANIUM, TOTAL | 231 | | 32.00000 | 0 | 45 | 4 | |
| 460 | RADIUM-226, TOTAL | 231 | | 0.19000 | 2 | 83 | 4 | |
| 460 | LEAD-210, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 460 | URANIUM, TOTAL | 231 | | 21.00000 | 0 | 45 | 4 | |
| 461 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 461 | LEAD-210, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 461 | URANIUM, TOTAL | 231 | | 31.00000 | 0 | 45 | 4 | |
| 462 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 462 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 462 | URANIUM, TOTAL | 231 | | 0.60000 | 1 | 45 | 4 | |
| 464 | RADIUM-226, TOTAL | 231 | | 0.14000 | 2 | 83 | 4 | |
| 464 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 464 | URANIUM, TOTAL | 231 | | 20.00000 | 0 | 45 | 4 | |
| 465 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 465 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 465 | URANIUM, TOTAL | 231 | | 42.00000 | 0 | 45 | 4 | |
| 467 | LEAD-210, TOTAL | 231 | | 0.09000 | 2 | 83 | 4 | |
| 467 | URANIUM, TOTAL | 231 | | 44.00000 | 0 | 45 | 4 | |
| 468 | RADIUM-226, TOTAL | 231 | | 0.17000 | 2 | 83 | 4 | |
| 468 | LEAD-210, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 468 | URANIUM, TOTAL | 231 | | 23.00000 | 1 | 45 | 4 | |
| 470 | RADIUM-226, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 470 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 470 | URANIUM, TOTAL | 231 | | 22.00000 | 0 | 45 | 4 | |
| 471 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 471 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 471 | URANIUM, TOTAL | 231 | | 17.00000 | 0 | 45 | 4 | |
| 472 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 472 | LEAD-210, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 472 | URANIUM, TOTAL | 231 | | 3.90000 | 1 | 45 | 4 | |
| 474 | RADIUM-226, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 474 | LEAD-210, TOTAL | 231 | | 0.23000 | 2 | 83 | 4 | |
| 474 | URANIUM, TOTAL | 231 | | 6.00000 | 1 | 45 | 4 | |
| 475 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 475 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 475 | URANIUM, TOTAL | 231 | | 2.00000 | 1 | 45 | 4 | |
| 476 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 476 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | | 83 | 4 |
| 476 | URANIUM, TOTAL | 231 | | 2.00000 | 1 | | 45 | 4 |
| 482 | RADIUM-226, TOTAL | 231 | | 0.09000 | 2 | | 83 | 4 |
| 482 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | | 83 | 4 |
| 482 | URANIUM, TOTAL | 231 | | 20.00000 | 0 | | 45 | 4 |
| 484 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | | 83 | 4 |
| 484 | LEAD-210, TOTAL | 231 | | 0.02000 | 2 | | 83 | 4 |
| 484 | URANIUM, TOTAL | 231 | | 11.50000 | 1 | | 45 | 4 |
| 486 | RADIUM-226, TOTAL | 231 | | 0.11000 | 2 | | 83 | 4 |
| 486 | LEAD-210, TOTAL | 231 | | 0.06000 | 2 | | 83 | 4 |
| 486 | URANIUM, TOTAL | 231 | | 37.00000 | 0 | | 45 | 4 |
| 488 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | | 83 | 4 |
| 488 | LEAD-210, TOTAL | 231 | | 0.19000 | 2 | | 83 | 4 |
| 488 | URANIUM, TOTAL | 231 | | 11.00000 | 0 | | 45 | 4 |
| 489 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | | 83 | 4 |
| 489 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | | 83 | 4 |
| 489 | URANIUM, TOTAL | 231 | | 8.00000 | 0 | | 45 | 4 |
| 490 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | | 83 | 4 |
| 490 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | | 83 | 4 |
| 490 | URANIUM, TOTAL | 231 | | 2.00000 | 0 | | 45 | 4 |
| 492 | RADIUM-226, TOTAL | 231 | | 0.08000 | 2 | | 83 | 4 |
| 492 | LEAD-210, TOTAL | 231 | | 0.02000 | 2 | | 83 | 4 |
| 492 | URANIUM, TOTAL | 231 | | 34.00000 | 0 | | 45 | 4 |
| 494 | RADIUM-226, TOTAL | 231 | | 0.08000 | 2 | | 83 | 4 |
| 494 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | | 83 | 4 |
| 494 | URANIUM, TOTAL | 231 | | 19.00000 | 0 | | 45 | 4 |
| 496 | RADIUM-226, TOTAL | 231 | | 0.06000 | 2 | | 83 | 4 |
| 496 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | | 83 | 4 |
| 496 | URANIUM, TOTAL | 231 | | 23.00000 | 0 | | 45 | 4 |
| 498 | RADIUM-226, TOTAL | 231 | | 0.17000 | 2 | | 83 | 4 |
| 498 | LEAD-210, TOTAL | 231 | | 0.11000 | 2 | | 83 | 4 |
| 498 | URANIUM, TOTAL | 231 | | 48.00000 | 0 | | 45 | 4 |
| 499 | RADIUM-226, TOTAL | 231 | | 0.08000 | 2 | | 83 | 4 |
| 499 | LEAD-210, TOTAL | 231 | | 0.07000 | 2 | | 83 | 4 |
| 499 | URANIUM, TOTAL | 231 | | 33.00000 | 0 | | 45 | 4 |
| 500 | RADIUM-226, TOTAL | 231 | | 0.03000 | 2 | | 83 | 4 |
| 500 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | | 83 | 4 |
| 500 | URANIUM, TOTAL | 231 | | 1.84000 | 2 | | 45 | 4 |
| 502 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | | 83 | 4 |
| 502 | LEAD-210, TOTAL | 231 | | 0.06000 | 2 | | 83 | 4 |
| 502 | URANIUM, TOTAL | 231 | | 27.00000 | 0 | | 45 | 4 |
| 503 | RADIUM-226, TOTAL | 231 | | 0.05000 | 2 | | 83 | 4 |
| 503 | LEAD-210, TOTAL | 231 | | 0.11000 | 2 | | 83 | 4 |
| 503 | URANIUM, TOTAL | 231 | | 9.50000 | 1 | | 45 | 4 |
| 505 | RADIUM-226, TOTAL | 231 | | 0.03000 | 2 | | 83 | 4 |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 505 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 505 | URANIUM, TOTAL | 231 | | 3.20000 | 1 | 45 | 4 | |
| 506 | RADIUM-226, TOTAL | 231 | | 0.21000 | 2 | 83 | 4 | |
| 506 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 506 | URANIUM, TOTAL | 231 | | 91.00000 | 0 | 45 | 4 | |
| 508 | RADIUM-226, TOTAL | 231 | | 0.31000 | 2 | 83 | 4 | |
| 508 | LEAD-210, TOTAL | 231 | | 0.19000 | 2 | 83 | 4 | |
| 508 | URANIUM, TOTAL | 231 | | 86.00000 | 0 | 45 | 4 | |
| 509 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 509 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 509 | URANIUM, TOTAL | 231 | | 3.30000 | 1 | 45 | 4 | |
| 510 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 510 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 510 | URANIUM, TOTAL | 231 | | 9.10000 | 1 | 45 | 4 | |
| 512 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 512 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 512 | URANIUM, TOTAL | 231 | | 8.80000 | 1 | 45 | 4 | |
| 513 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 513 | LEAD-210, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 513 | URANIUM, TOTAL | 231 | | 15.20000 | 1 | 45 | 4 | |
| 515 | RADIUM-226, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 515 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 515 | URANIUM, TOTAL | 231 | | 29.10000 | 1 | 45 | 4 | |
| 517 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 517 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 517 | URANIUM, TOTAL | 231 | | 21.70000 | 1 | 45 | 4 | |
| 518 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 518 | LEAD-210, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 518 | URANIUM, TOTAL | 231 | | 2.00000 | 0 | 45 | 4 | |
| 520 | RADIUM-226, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 520 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 520 | URANIUM, TOTAL | 231 | | 11.00000 | 0 | 45 | 4 | |
| 521 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 521 | LEAD-210, TOTAL | 231 | | 0.03000 | 2 | 83 | 4 | |
| 521 | URANIUM, TOTAL | 231 | | 1.70000 | 1 | 45 | 4 | |
| 523 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 523 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 523 | URANIUM, TOTAL | 231 | | 1.50000 | 1 | 45 | 4 | |
| 524 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 524 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 524 | URANIUM, TOTAL | 231 | | 2.40000 | 1 | 45 | 4 | |
| 525 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 525 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 525 | URANIUM, TOTAL | 231 | | 0.80000 | 1 | 45 | 4 | |
| 527 | URANIUM, TOTAL | 231 | | 67.00000 | 0 | 45 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 528 | RADIUM-226, TOTAL | 231 | | 0.17000 | 2 | | 83 | 4 |
| 528 | LEAD-210, TOTAL | 231 | | 0.19000 | 2 | | 83 | 4 |
| 528 | URANIUM, TOTAL | 231 | | 59.00000 | 0 | | 45 | 4 |
| 529 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | | 83 | 4 |
| 529 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | | 83 | 4 |
| 529 | URANIUM, TOTAL | 231 | | 5.50000 | 1 | | 45 | 4 |
| 531 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | | 83 | 4 |
| 531 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | | 83 | 4 |
| 531 | URANIUM, TOTAL | 231 | | 71.00000 | 0 | | 45 | 4 |
| 533 | RADIUM-226, TOTAL | 231 | | 0.14000 | 2 | | 83 | 4 |
| 533 | LEAD-210, TOTAL | 231 | | 0.12000 | 2 | | 83 | 4 |
| 533 | URANIUM, TOTAL | 231 | | 14.50000 | 1 | | 45 | 4 |
| 534 | RADIUM-226, TOTAL | 231 | | 0.06000 | 2 | | 83 | 4 |
| 534 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | | 83 | 4 |
| 534 | URANIUM, TOTAL | 231 | | 4.80000 | 1 | | 45 | 4 |
| 535 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | | 83 | 4 |
| 535 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | | 83 | 4 |
| 535 | URANIUM, TOTAL | 231 | < | 0.50000 | 1 | | 45 | 4 |
| 537 | RADIUM-226, TOTAL | 231 | | 0.06000 | 2 | | 83 | 4 |
| 537 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | | 83 | 4 |
| 537 | URANIUM, TOTAL | 231 | | 28.00000 | 0 | | 45 | 4 |
| 538 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | | 83 | 4 |
| 538 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | | 83 | 4 |
| 538 | URANIUM, TOTAL | 231 | | 0.60000 | 1 | | 45 | 4 |
| 539 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | | 83 | 4 |
| 539 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | | 83 | 4 |
| 539 | URANIUM, TOTAL | 231 | | 2.00000 | 1 | | 45 | 4 |
| 541 | RADIUM-226, TOTAL | 231 | | 0.07000 | 2 | | 83 | 4 |
| 541 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | | 83 | 4 |
| 541 | URANIUM, TOTAL | 231 | | 16.00000 | 0 | | 45 | 4 |
| 542 | RADIUM-226, TOTAL | 231 | | 0.08000 | 2 | | 83 | 4 |
| 542 | LEAD-210, TOTAL | 231 | | 0.09000 | 2 | | 83 | 4 |
| 542 | URANIUM, TOTAL | 231 | | 8.00000 | 0 | | 45 | 4 |
| 544 | RADIUM-226, TOTAL | 231 | | 0.06000 | 2 | | 83 | 4 |
| 544 | URANIUM, TOTAL | 231 | | 3.20000 | 1 | | 45 | 4 |
| 545 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | | 83 | 4 |
| 545 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | | 83 | 4 |
| 545 | URANIUM, TOTAL | 231 | | 5.10000 | 1 | | 45 | 4 |
| 546 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | | 83 | 4 |
| 546 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | | 83 | 4 |
| 546 | URANIUM, TOTAL | 231 | | 0.90000 | 1 | | 45 | 4 |
| 548 | RADIUM-226, TOTAL | 231 | | 0.09000 | 2 | | 83 | 4 |
| 548 | LEAD-210, TOTAL | 231 | | 0.09000 | 2 | | 83 | 4 |
| 548 | URANIUM, TOTAL | 231 | | 37.00000 | 0 | | 45 | 4 |
| 549 | RADIUM-226, TOTAL | 231 | | 0.02000 | 2 | | 83 | 4 |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 549 | LEAD-210, TOTAL | 231 | | 0.02000 | 2 | 83 | 4 | |
| 549 | URANIUM, TOTAL | 231 | | 3.90000 | 1 | 45 | 4 | |
| 550 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 550 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 550 | URANIUM, TOTAL | 231 | | 3.30000 | 1 | 45 | 4 | |
| 552 | RADIUM-226, TOTAL | 231 | | 0.91000 | 2 | 83 | 4 | |
| 552 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 552 | URANIUM, TOTAL | 231 | | 2.00000 | 1 | 45 | 4 | |
| 553 | RADIUM-226, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 553 | LEAD-210, TOTAL | 231 | | 0.06000 | 2 | 83 | 4 | |
| 553 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 555 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 555 | LEAD-210, TOTAL | 231 | | 0.05000 | 2 | 83 | 4 | |
| 555 | URANIUM, TOTAL | 231 | | 13.00000 | 0 | 45 | 4 | |
| 556 | URANIUM, TOTAL | 231 | | 1.90000 | 1 | 45 | 4 | |
| 557 | RADIUM-226, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 557 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 557 | URANIUM, TOTAL | 231 | | 7.70000 | 1 | 45 | 4 | |
| 559 | RADIUM-226, TOTAL | 231 | | 0.16000 | 2 | 83 | 4 | |
| 559 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 559 | URANIUM, TOTAL | 231 | | 4.00000 | 1 | 45 | 4 | |
| 560 | RADIUM-226, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 560 | LEAD-210, TOTAL | 231 | | 0.04000 | 2 | 83 | 4 | |
| 560 | URANIUM, TOTAL | 231 | | 4.60000 | 1 | 45 | 4 | |
| 561 | URANIUM, TOTAL | 231 | | 13.00000 | 0 | 45 | 4 | |
| 568 | RADIUM-226, TOTAL | 231 | | 0.98000 | 2 | 83 | 4 | |
| 568 | LEAD-210, TOTAL | 231 | | 0.37000 | 2 | 83 | 4 | |
| 568 | URANIUM, TOTAL | 231 | | 25.00000 | 0 | 45 | 4 | |
| 569 | RADIUM-226, TOTAL | 231 | | 0.30000 | 2 | 83 | 4 | |
| 569 | LEAD-210, TOTAL | 231 | | 0.13000 | 2 | 83 | 4 | |
| 569 | URANIUM, TOTAL | 231 | | 9.00000 | 1 | 45 | 4 | |
| 570 | RADIUM-226, TOTAL | 231 | | 0.20000 | 2 | 83 | 4 | |
| 570 | LEAD-210, TOTAL | 231 | | 0.08000 | 2 | 83 | 4 | |
| 570 | URANIUM, TOTAL | 231 | | 49.00000 | 0 | 45 | 4 | |
| 571 | RADIUM-226, TOTAL | 231 | | 0.22000 | 2 | 83 | 4 | |
| 571 | LEAD-210, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 571 | URANIUM, TOTAL | 231 | | 24.00000 | 0 | 45 | 4 | |
| 573 | LEAD-210, TOTAL | 231 | | 0.37000 | 2 | 83 | 4 | |
| 573 | URANIUM, TOTAL | 231 | | 38.00000 | 0 | 45 | 4 | |
| 574 | RADIUM-226, TOTAL | 231 | | 1.92000 | 2 | 83 | 4 | |
| 574 | LEAD-210, TOTAL | 231 | | 0.78000 | 2 | 83 | 4 | |
| 574 | URANIUM, TOTAL | 231 | | 60.00000 | 0 | 45 | 4 | |
| 576 | RADIUM-226, TOTAL | 231 | | 0.37000 | 2 | 83 | 4 | |
| 576 | LEAD-210, TOTAL | 231 | | 0.07000 | 2 | 83 | 4 | |
| 576 | URANIUM, TOTAL | 231 | | 22.00000 | 0 | 45 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | *02. SOURCE CODE | *06. LESS THAN | 1102. VALUE | *07. PRECISION | 1103. UNITS | *08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 577 | RADIUM-226, TOTAL | 231 | | 0.78000 | 2 | 83 | 4 | |
| 577 | LEAD-210, TOTAL | 231 | | 0.26000 | 2 | 83 | 4 | |
| 577 | URANIUM, TOTAL | 231 | | 68.00000 | 0 | 45 | 4 | |
| 578 | RADIUM-226, TOTAL | 231 | | 0.27000 | 2 | 83 | 4 | |
| 578 | LEAD-210, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 578 | URANIUM, TOTAL | 231 | | 135.00000 | 0 | 45 | 4 | |
| 579 | RADIUM-226, TOTAL | 231 | | 0.40000 | 2 | 83 | 4 | |
| 579 | LEAD-210, TOTAL | 231 | | 0.13000 | 2 | 83 | 4 | |
| 579 | URANIUM, TOTAL | 231 | | 76.00000 | 0 | 45 | 4 | |
| 580 | RADIUM-226, TOTAL | 231 | | 0.27000 | 2 | 83 | 4 | |
| 580 | LEAD-210, TOTAL | 231 | | 0.11000 | 2 | 83 | 4 | |
| 580 | URANIUM, TOTAL | 231 | | 79.00000 | 0 | 45 | 4 | |
| 581 | RADIUM-226, TOTAL | 231 | | 0.13000 | 2 | 83 | 4 | |
| 581 | LEAD-210, TOTAL | 231 | | 0.10000 | 2 | 83 | 4 | |
| 581 | URANIUM, TOTAL | 231 | | 85.00000 | 0 | 45 | 4 | |
| 582 | RADIUM-226, TOTAL | 231 | | 0.35000 | 2 | 83 | 4 | |
| 582 | LEAD-210, TOTAL | 231 | | 0.11000 | 2 | 83 | 4 | |
| 582 | URANIUM, TOTAL | 231 | | 52.00000 | 0 | 45 | 4 | |
| 583 | RADIUM-226, TOTAL | 231 | | 0.39000 | 2 | 83 | 4 | |
| 583 | LEAD-210, TOTAL | 231 | | 0.21000 | 2 | 83 | 4 | |
| 583 | URANIUM, TOTAL | 231 | | 108.00000 | 0 | 45 | 4 | |
| 584 | RADIUM-226, TOTAL | 231 | | 0.42000 | 2 | 83 | 4 | |
| 584 | LEAD-210, TOTAL | 231 | | 0.19000 | 2 | 83 | 4 | |
| 584 | URANIUM, TOTAL | 231 | | 18.00000 | 0 | 45 | 4 | |
| 585 | RADIUM-226, TOTAL | 231 | | 0.21000 | 2 | 83 | 4 | |
| 585 | LEAD-210, TOTAL | 231 | | 0.22000 | 2 | 83 | 4 | |
| 585 | URANIUM, TOTAL | 231 | | 94.00000 | 0 | 45 | 4 | |
| 586 | RADIUM-226, TOTAL | 231 | | 2.08000 | 2 | 83 | 4 | |
| 586 | LEAD-210, TOTAL | 231 | | 0.74000 | 2 | 83 | 4 | |
| 586 | URANIUM, TOTAL | 231 | | 15.00000 | 0 | 45 | 4 | |
| 588 | RADIUM-226, TOTAL | 231 | | 1.04000 | 2 | 83 | 4 | |
| 588 | LEAD-210, TOTAL | 231 | | 0.15000 | 2 | 83 | 4 | |
| 588 | URANIUM, TOTAL | 231 | | 18.00000 | 0 | 45 | 4 | |
| 594 | RADIUM-226, TOTAL | 231 | | 2.60000 | 2 | 83 | 4 | |
| 594 | LEAD-210, TOTAL | 231 | | 2.04000 | 2 | 83 | 4 | |
| 594 | URANIUM, TOTAL | 231 | | 22.00000 | 0 | 45 | 4 | |
| 596 | RADIUM-226, TOTAL | 231 | | 2.16000 | 2 | 83 | 4 | |
| 596 | LEAD-210, TOTAL | 231 | | 1.78000 | 2 | 83 | 4 | |
| 596 | URANIUM, TOTAL | 231 | | 119.00000 | 0 | 45 | 4 | |
| 598 | RADIUM-226, TOTAL | 231 | | 0.85000 | 2 | 83 | 4 | |
| 598 | LEAD-210, TOTAL | 231 | | 0.40000 | 2 | 83 | 4 | |
| 598 | URANIUM, TOTAL | 231 | | 32.00000 | 0 | 45 | 4 | |
| 604 | RADIUM-226, TOTAL | 231 | | 1.49000 | 2 | 83 | 4 | |
| 604 | LEAD-210, TOTAL | 231 | | 1.35000 | 2 | 83 | 4 | |
| 604 | URANIUM, TOTAL | 231 | | 22.00000 | 0 | 45 | 4 | |

TABLE08-2: MEASUREMENT RESULTS

| CODING FORM PAGE | 1101. MATERIAL | #02. SOURCE CODE | #06. LESS THAN | 1102. VALUE | #07. PRECISION | 1103. UNITS | #08. WEIGHT TYPE | 1104. QUALITY |
|---|---|---|---|---|---|---|---|---|
| 606 | RADIUM-226, TOTAL | 231 | | 2.10000 | 2 | 83 | 4 | |
| 606 | LEAD-210, TOTAL | 231 | | 2.59000 | 2 | 83 | 4 | |
| 606 | URANIUM, TOTAL | 231 | | 74.00000 | 0 | 45 | 4 | |
| 607 | LEAD-210, TOTAL | 231 | | 0.74000 | 2 | 83 | 4 | |
| 607 | URANIUM, TOTAL | 231 | | 48.00000 | 0 | 45 | 4 | |
| 609 | RADIUM-226, TOTAL | 231 | | 3.93000 | 2 | 83 | 4 | |
| 609 | LEAD-210, TOTAL | 231 | | 1.76000 | 2 | 83 | 4 | |
| 609 | URANIUM, TOTAL | 231 | | 38.00000 | 0 | 45 | 4 | |
| 615 | RADIUM-226, TOTAL | 231 | | 3.39000 | 2 | 83 | 4 | |
| 615 | LEAD-210, TOTAL | 231 | | 1.84000 | 2 | 83 | 4 | |
| 615 | URANIUM, TOTAL | 231 | | 25.00000 | 0 | 45 | 4 | |
| 653 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 653 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 653 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 654 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 654 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 654 | URANIUM, TOTAL | 231 | | 0.60000 | 1 | 45 | 4 | |
| 655 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 655 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 655 | URANIUM, TOTAL | 231 | | 1.30000 | 1 | 45 | 4 | |
| 656 | RADIUM-226, TOTAL | 231 | | 0.00000 | 2 | 83 | 4 | |
| 656 | LEAD-210, TOTAL | 231 | < | 0.02000 | 2 | 83 | 4 | |
| 656 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |
| 657 | RADIUM-226, TOTAL | 231 | | 0.01000 | 2 | 83 | 4 | |
| 657 | URANIUM, TOTAL | 231 | < | 0.20000 | 1 | 45 | 4 | |

## APPENDIX N

## FILE STRUCTURE AND DATA LISTING FOR TABLE09.

STRUCTURE FOR FILE: C:TABLE09 .DBF
NUMBER OF RECORDS: 00106
DATE OF LAST UPDATE: 05/18/84
PRIMARY USE DATABASE

| FLD | NAME | TYPE | WIDTH | DEC |
|---|---|---|---|---|
| 001 | CFPAGE | N | 007 | |
| 002 | TLNGSST01 | C | 012 | |
| 003 | STDYID:01 | C | 003 | |
| 004 | RFRNCI701 | C | 012 | |
| 005 | LCTNCD:09 | C | 003 | |
| 006 | SMPLDT702 | N | 006 | |
| 007 | SMPLTM703 | N | 006 | |
| 008 | SMPLTP705 | N | 004 | |
| 009 | SMPL704:1 | C | 007 | |
| 010 | SMPL704:2 | C | 007 | |
| 011 | SMPL704:3 | C | 007 | |
| 012 | SMPL704:4 | C | 007 | |
| 013 | SMPL704:5 | C | 007 | |
| 014 | SMPL704:6 | C | 007 | |
| 015 | SMPLDS706 | C | 035 | |
| 016 | LCNACC707 | C | 006 | 001 |
| 017 | EASTNG708 | N | 009 | 001 |
| 018 | NORTHG709 | N | 010 | 001 |
| 019 | ZONE710 | N | 002 | |
| 020 | SRFCEL711 | N | 008 | 002 |
| 021 | PRCSN711 | C | 001 | |
| 022 | SMPLDP712 | N | 008 | 002 |
| 023 | PRCSN712 | C | 001 | |
| 024 | SMPLMT:10 | C | 002 | |
| 025 | SDMNTP:11 | C | 002 | |
| 026 | FLOW:12 | C | 002 | |
| ** TOTAL ** | | | 00182 | |

.

```
M=1,L=54,W=137
Y
TABLE09-1: SAMPLE DESCRIPTION AND LOCATION
N
N
7,CFPAGE
CODING FORM PAGE
15,TLNGSST01
1. TAILINGS SITE IDENTIFIER
11,STDYID:01
*01. STUDY IDENTIFIER
13,RFRNCI701
701. REFERENCE IDENTIFIER
9,LCTNCD:09
*09. LOCATION CODE
7,SMPLDT702
702. SAMPLE DATE
7,SMPLTM703
703. SAMPLE TIME
7,SMPLTP705
705. SAMPLE TYPE
7,SMPL704:1
704. SAMPLE ID-1
7,SMPL704:2
704. SAMPLE ID-2
7,SMPL704:3
704. SAMPLE ID-3
7,SMPL704:4
704. SAMPLE ID-4
7,SMPL704:5
704. SAMPLE ID-5
```

```
M=10,L=54,W=137
Y
TABLE09-2: SAMPLE DESCRIPTION AND LOCATION
N
N
7,CFPAGE
CODING FORM PAGE
7,SMPL704:6
704. SAMPLE ID-6
35,SMPLDS706
706. SAMPLE DESCRIPTION
9,LCNACC707
707. LOCATION ACCURACY
9,EASTNG708
708. EASTING
10,NORTHG709
709. NORTHING
4,ZONE710
710. ZONE
```

```
M=10,L=54,W=137
Y
TABLE09-3: SAMPLE DESCRIPTION AND LOCATION
N
N
7,CFPAGE
CODING FORM PAGE
9,SRFCEL711
711. SURFACE ELEVATION
10,PRCSN711
*07. PRECISION
8,SMPLDP712
712. SAMPLE DEPTH
10,PRCSN712
*07. PRECISION
8,SMPLMT:10
*10. SAMPLE METHOD (FIELD)
9,SDMNTP:11
*11. SEDIMENT TYPE
6,FLOW:12
*12. FLOW
```

TABLE09-1: SAMPLE DESCRIPTION AND LOCATION

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | *01. STUDY IDENTIFIER | 701. REFERENCE IDENTIFIER | *09. LOCATION CODE | 702. SAMPLE DATE | 703. SAMPLE TIME | 705. SAMPLE TYPE | 704. SAMPLE ID-1 | 704. SAMPLE ID-2 | 704. SAMPLE ID-3 | 704. SAMPLE ID-4 | 704. SAMPLE ID-5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 372 | | | | |
| 10 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 371 | | | | |
| 13 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 370 | | | | |
| 16 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 306 | 307 | | | |
| 20 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 303 | 304 | 305 | | |
| 25 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 300 | 301 | 302 | | |
| 30 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 296 | 297 | | | |
| 34 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 293 | 294 | 295 | | |
| 39 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 290 | 291 | | | |
| 43 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 275 | | | | |
| 46 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 274 | | | | |
| 51 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 273 | | | | |
| 54 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 178 | 179 | | | |
| 58 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 175 | 176 | | | |
| 62 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 172 | 173 | | | |
| 66 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 169 | 170 | | | |
| 70 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 166 | 167 | | | |
| 74 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 163 | 164 | | | |
| 78 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 160 | 161 | | | |
| 82 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 157 | 158 | | | |
| 86 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 156 | | | | |
| 89 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 155 | | | | |
| 92 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 154 | | | | |
| 95 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 153 | | | | |
| 98 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 152 | | | | |
| 101 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 151 | | | | |
| 104 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 133 | 134 | 135 | | |
| 109 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 85 | 86 | | | |
| 113 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 76 | 77 | | | |
| 117 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 73 | 74 | | | |
| 121 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 70 | 71 | | | |
| 125 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 67 | 68 | 69 | | |
| 130 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 55 | 56 | 57 | | |
| 135 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 49 | 50 | 51 | | |
| 140 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 46 | 48 | | | |
| 144 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 43 | 44 | | | |
| 148 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 40 | 42 | | | |
| 152 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 37 | 39 | | | |
| 156 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 35 | 36 | | | |
| 160 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 32 | | | | |
| 163 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 28 | 29 | 30 | | |
| 168 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 25 | 26 | 27 | | |
| 173 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 22 | 23 | 24 | | |
| 178 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 20 | | | | |
| 181 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 16 | 17 | | | |

TABLE09-1: SAMPLE DESCRIPTION AND LOCATION

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | *01. STUDY IDENTIFIER | 701. REFERENCE IDENTIFIER | *09. LOCATION CODE | 702. SAMPLE DATE | 703. SAMPLE TIME | 705. SAMPLE TYPE | 704. SAMPLE ID-1 | 704. SAMPLE ID-2 | 704. SAMPLE ID-3 | 704. SAMPLE ID-4 | 704. SAMPLE ID-5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 13 | 14 | | | |
| 189 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 10 | 11 | 12 | | |
| 194 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 7 | 8 | 9 | | |
| 199 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 4 | 5 | 6 | | |
| 204 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 1 | 2 | | | |
| 211 | BEAVERLODGEL | 001 | FULTONL,NS-2 | 002 | 790719 | 200000 | 7100 | 286 | | | | |
| 213 | BEAVERLODGEL | 001 | FULTONL,NS-2 | 002 | 790719 | 200000 | 7100 | 285 | | | | |
| 217 | BEAVERLODGEL | 001 | FULTONL,NS-2 | 002 | 790719 | 200000 | 7100 | 284 | | | | |
| 220 | BEAVERLODGEL | 001 | FULTONL,NS-2 | 002 | 790719 | 200000 | 7100 | 64 | 65 | 66 | | |
| 225 | BEAVERLODGEL | 001 | FULTONL,NS-2 | 002 | 790719 | 200000 | 7100 | 61 | 62 | 63 | | |
| 230 | BEAVERLODGEL | 001 | FULTONL,NS-2 | 002 | 790719 | 200000 | 7100 | 58 | 59 | | | |
| 234 | BEAVERLODGEL | 001 | FULTONL,NS-2 | 002 | 790719 | 200000 | 7100 | 53 | | | | |
| 240 | BEAVERLODGEL | 001 | BEAV.1, NS-1 | 003 | 790715 | 101500 | 7100 | 193 | 194 | 195 | | |
| 245 | BEAVERLODGEL | 001 | BEAV.1, NS-1 | 003 | 790715 | 101500 | 7100 | 201 | | | | |
| 251 | BEAVERLODGEL | 001 | BEAV.1, NS-2 | 004 | 790715 | 134500 | 7100 | 123 | 124 | 125 | 126 | 127 |
| 251 | BEAVERLODGEL | 001 | BEAV.1, NS-2 | 004 | 790715 | 134500 | 7100 | 131 | 132 | 335 | 336 | 337 |
| 251 | BEAVERLODGEL | 001 | BEAV.1, NS-2 | 004 | 790715 | 134500 | 7100 | 339 | 340 | 341 | 342 | 343 |
| 251 | BEAVERLODGEL | 001 | BEAV.1, NS-2 | 004 | 790715 | 134500 | 7100 | 345 | 346 | 347 | 348 | 349 |
| 251 | BEAVERLODGEL | 001 | BEAV.1, NS-2 | 004 | 790715 | 134500 | 7100 | 351 | 376 | 377 | 380 | 385 |
| 296 | BEAVERLODGEL | 001 | BEAV.1, NS-2 | 004 | 790715 | 134500 | 7100 | 121 | 122 | 123 | | |
| 301 | BEAVERLODGEL | 001 | BEAV.1, NS-2 | 004 | 790715 | 134500 | 7100 | 118 | 119 | | | |
| 305 | BEAVERLODGEL | 001 | BEAV.1, NS-2 | 004 | 790715 | 134500 | 7100 | 115 | 116 | 117 | | |
| 310 | BEAVERLODGEL | 001 | BEAV.1, NS-2 | 004 | 790715 | 134500 | 7100 | 113 | | | | |
| 313 | BEAVERLODGEL | 001 | BEAV.1, NS-2 | 004 | 790715 | 134500 | 7100 | 109 | 110 | | | |
| 317 | BEAVERLODGEL | 001 | BEAV.1, NS-2 | 004 | 790715 | 134500 | 7100 | 106 | 107 | | | |
| 324 | BEAVERLODGEL | 001 | BEAV.1, NS-3 | 005 | 790716 | 103000 | 7100 | 136 | 137 | 138 | 139 | 140 |
| 324 | BEAVERLODGEL | 001 | BEAV.1, NS-3 | 005 | 790716 | 103000 | 7100 | 142 | 143 | 144 | 145 | 147 |
| 324 | BEAVERLODGEL | 001 | BEAV.1, NS-3 | 005 | 790716 | 103000 | 7100 | 149 | 150 | 181 | 182 | 183 |
| 324 | BEAVERLODGEL | 001 | BEAV.1, NS-3 | 005 | 790716 | 103000 | 7100 | 246 | 247 | 255 | 256 | 257 |
| 324 | BEAVERLODGEL | 001 | BEAV.1, NS-3 | 005 | 790716 | 103000 | 7100 | 259 | 261 | 262 | 264 | 265 |
| 324 | BEAVERLODGEL | 001 | BEAV.1, NS-3 | 005 | 790716 | 103000 | 7100 | 268 | 269 | 270 | 271 | 320 |
| 324 | BEAVERLODGEL | 001 | BEAV.1, NS-3 | 005 | 790716 | 103000 | 7100 | 322 | 323 | 324 | 325 | 326 |
| 324 | BEAVERLODGEL | 001 | BEAV.1, NS-3 | 005 | 790716 | 103000 | 7100 | 328 | 329 | 330 | 331 | 332 |
| 324 | BEAVERLODGEL | 001 | BEAV.1, NS-3 | 005 | 790716 | 103000 | 7100 | 334 | 390 | | | |
| 400 | BEAVERLODGEL | 001 | BEAV.1, NS-4 | 006 | 790716 | 143000 | 7100 | 210 | 211 | 212 | 213 | 214 |
| 400 | BEAVERLODGEL | 001 | BEAV.1, NS-4 | 006 | 790716 | 143000 | 7100 | 216 | 217 | 219 | 220 | 220 |
| 400 | BEAVERLODGEL | 001 | BEAV.1, NS-4 | 006 | 790716 | 143000 | 7100 | 224 | 225 | 226 | 227 | 383 |
| 428 | BEAVERLODGEL | 001 | BEAV.1, NS-5 | 007 | 790717 | 124500 | 7100 | 276 | 277 | 278 | 279 | 280 |
| 428 | BEAVERLODGEL | 001 | BEAV.1, NS-5 | 007 | 790717 | 124500 | 7100 | 282 | 283 | 298 | 299 | 309 |
| 428 | BEAVERLODGEL | 001 | BEAV.1, NS-5 | 007 | 790717 | 124500 | 7100 | 311 | 312 | 313 | 314 | 315 |
| 428 | BEAVERLODGEL | 001 | BEAV.1, NS-5 | 007 | 790717 | 124500 | 7100 | 317 | 318 | 319 | 352 | 353 |
| 428 | BEAVERLODGEL | 001 | BEAV.1, NS-5 | 007 | 790717 | 124500 | 7100 | 355 | 356 | 357 | 358 | 359 |
| 428 | BEAVERLODGEL | 001 | BEAV.1, NS-5 | 007 | 790717 | 124500 | 7100 | 361 | 365 | 366 | 388 | |
| 481 | BEAVERLODGEL | 001 | BEAV.1, NS-6 | 008 | 790717 | 152000 | 7100 | 79 | 80 | 81 | 82 | 83 |
| 481 | BEAVERLODGEL | 001 | BEAV.1, NS-6 | 008 | 790717 | 152000 | 7100 | 88 | 89 | 91 | 92 | 93 |

TABLE09-1: SAMPLE DESCRIPTION AND LOCATION

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | *01. STUDY IDENTIFIER | 701. REFERENCE IDENTIFIER | *09. LOCATION CODE | 702. SAMPLE DATE | 703. SAMPLE TIME | 705. SAMPLE TYPE | 704. SAMPLE ID-1 | 704. SAMPLE ID-2 | 704. SAMPLE ID-3 | 704. SAMPLE ID-4 | 704. SAMPLE ID-5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 481 | BEAVERLODSEL | 001 | BEAV.L, NS-6 | 008 | 790717 | 152000 | 7100 | 95 | 96 | 97 | 98 | 100 |
| 481 | BEAVERLODGEL | 001 | BEAV.L, NS-6 | 008 | 790717 | 152000 | 7100 | 102 | 103 | 104 | 105 | 185 |
| 481 | BEAVERLODGEL | 001 | BEAV.L, NS-6 | 008 | 790717 | 152000 | 7100 | 188 | 189 | 369 | 375 | 374 |
| 481 | BEAVERLODGEL | 001 | BEAV.L, NS-6 | 008 | 790717 | 152000 | 7100 | 191 | 192 | 228 | 229 | 232 |
| 481 | BEAVERLODGEL | 001 | BEAV.L, NS-6 | 008 | 790717 | 152000 | 7100 | 235 | 237 | 238 | 240 | 241 |
| 481 | BEAVERLODGEL | 001 | BEAV.L, NS-6 | 008 | 790717 | 152000 | 7100 | 243 | 244 | 249 | 250 | 252 |
| 481 | BEAVERLODGEL | 001 | BEAV.L, NS-6 | 008 | 790717 | 152000 | 7100 | 254 | 287 | 288 | 289 | 362 |
| 481 | BEAVERLODGEL | 001 | BEAV.L, NS-6 | 008 | 790717 | 152000 | 7100 | 364 | | | | |
| 566 | BEAVERLODSEL | 001 | BEAV.L, BHS | 009 | 790700 | 0 | 7100 | 202 | 203 | 204 | 206 | 207 |
| 566 | BEAVERLODGEL | 001 | BEAV.L, BHS | 009 | 790700 | 0 | 7100 | 209 | 378 | 379 | 381 | 382 |
| 566 | BEAVERLODGEL | 001 | BEAV.L, BHS | 009 | 790700 | 0 | 7100 | 387 | 391 | 397 | 398 | 399 |
| 593 | BEAVERLODGEL | 001 | ACE CR. BSH | 010 | 790700 | 0 | 7100 | 196 | 197 | 200 | | |
| 603 | BEAVERLODGEL | 001 | TAILINGS BSH | 011 | 790700 | 0 | 7100 | 198 | 199 | 395 | 401 | |
| 614 | BEAVERLODGEL | 001 | MARIE L,NS-2 | 012 | 790722 | 104500 | 7100 | 400 | | | | |
| 658 | BEAVERLODSEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 1 | 2 | | | |
| 659 | BEAVERLODGEL | 001 | FULTONL,NS-1 | 001 | 790719 | 101500 | 7100 | 4 | 5 | 6 | | |

TABLE09-2: SAMPLE DESCRIPTION AND LOCATION

| CODING FORM PAGE | 704. SAMPLE ID-6 | 706. SAMPLE DESCRIPTION | 707. LOCATION ACCURACY | 708. EASTING | 709. NORTHING | 710. ZONE |
|---|---|---|---|---|---|---|
| 4 | | | | 45500.0 | 6603600.0 | 12 |
| 10 | | | | 45500.0 | 6603600.0 | 12 |
| 13 | | | | 45500.0 | 6603600.0 | 12 |
| 16 | | | | 45500.0 | 6603600.0 | 12 |
| 20 | | | | 45500.0 | 6603600.0 | 12 |
| 25 | | | | 45500.0 | 6603600.0 | 12 |
| 30 | | | | 45500.0 | 6603600.0 | 10 |
| 34 | | | | 45500.0 | 6603600.0 | 12 |
| 39 | | | | 45500.0 | 6603600.0 | 10 |
| 43 | | | | 45500.0 | 6603600.0 | 12 |
| 46 | | | | 45500.0 | 6603600.0 | 12 |
| 51 | | | | 45500.0 | 6603600.0 | 12 |
| 54 | | | | 45500.0 | 6603600.0 | 12 |
| 58 | | | | 45500.0 | 6603600.0 | 12 |
| 62 | | | | 45500.0 | 6603600.0 | 12 |
| 66 | | | | 45500.0 | 6603600.0 | 12 |
| 70 | | | | 45500.0 | 6603600.0 | 12 |
| 74 | | | | 45500.0 | 6603600.0 | 12 |
| 78 | | | | 45500.0 | 6603600.0 | 12 |
| 82 | | | | 45500.0 | 6603600.0 | 12 |
| 86 | | | | 45500.0 | 6603600.0 | 12 |
| 89 | | | | 44500.0 | 6603600.0 | 12 |
| 92 | | | | 45500.0 | 6603600.0 | 12 |
| 95 | | | | 45500.0 | 6603600.0 | 12 |
| 98 | | | | 45500.0 | 6603600.0 | 12 |
| 101 | | | | 45500.0 | 6603600.0 | 12 |
| 104 | | | | 45500.0 | 6603600.0 | 12 |
| 107 | | | | 45500.0 | 6603600.0 | 12 |
| 113 | | | | 45500.0 | 6603600.0 | 12 |
| 117 | | | | 45500.0 | 6603600.0 | 12 |
| 121 | | | | 45500.0 | 6603600.0 | 12 |
| 125 | | | | 45500.0 | 6603600.0 | 12 |
| 130 | | | | 45500.0 | 6603600.0 | 12 |
| 135 | | | | 45500.0 | 6603600.0 | 12 |
| 140 | | | | 45500.0 | 6603600.0 | 12 |
| 144 | | | | 45500.0 | 6603600.0 | 12 |
| 148 | | | | 45500.0 | 6603600.0 | 12 |
| 152 | | | | 45500.0 | 6603600.0 | 12 |
| 156 | | | | 45500.0 | 6603600.0 | 12 |
| 160 | | | | 45500.0 | 6603600.0 | 12 |
| 163 | | | | 45500.0 | 6603600.0 | 12 |
| 168 | | | | 45500.0 | 6603600.0 | 12 |
| 173 | | | | 45500.0 | 6603600.0 | 12 |
| 178 | | | | 45500.0 | 6603600.0 | 12 |
| 181 | | | | 45500.0 | 6603600.0 | 12 |

TABLE09-2: SAMPLE DESCRIPTION AND LOCATION

| CODING FORM PAGE | 704. SAMPLE ID-6 | 706. SAMPLE DESCRIPTION | 707. LOCATION ACCURACY | 708. EASTING | 709. NORTHING | 710. ZONE |
|---|---|---|---|---|---|---|
| 185 | | | | 45500.0 | 6603600.0 | 12 |
| 189 | | | | 45500.0 | 6603600.0 | 12 |
| 194 | | | | 45500.0 | 6603600.0 | 12 |
| 199 | | | | 45500.0 | 6603600.0 | 12 |
| 204 | | | | 45500.0 | 6603600.0 | 12 |
| 211 | | | | 46250.0 | 6603300.0 | 12 |
| 214 | | | | 46250.0 | 6603300.0 | 12 |
| 217 | | | | 46250.0 | 6603300.0 | 12 |
| 220 | | | | 46250.0 | 6603300.0 | 12 |
| 225 | | | | 46250.0 | 6603300.0 | 12 |
| 230 | | | | 46250.0 | 6603300.0 | 12 |
| 234 | | | | 46250.0 | 6603300.0 | 12 |
| 240 | | | | 642100.0 | 6600700.0 | 12 |
| 245 | | | | 642100.0 | 6600700.0 | 12 |
| 251 | 130 | | | 642600.0 | 6602100.0 | 12 |
| 251 | 338 | | | 642600.0 | 6602100.0 | 12 |
| 251 | 344 | | | 642600.0 | 6602100.0 | 12 |
| 251 | 350 | | | 642600.0 | 6602100.0 | 12 |
| 251 | 386 | | | 642600.0 | 6602100.0 | 12 |
| 296 | | | | 642600.0 | 6602100.0 | 12 |
| 301 | | | | 642600.0 | 6602100.0 | 12 |
| 305 | | | | 642600.0 | 6602100.0 | 12 |
| 310 | | | | 642600.0 | 6602100.0 | 12 |
| 313 | | | | 642600.0 | 6602100.0 | 12 |
| 317 | | | | 642600.0 | 6602100.0 | 12 |
| 324 | 141 | | | 640100.0 | 6601500.0 | 12 |
| 324 | 148 | | | 640100.0 | 6601500.0 | 12 |
| 324 | 205 | | | 640100.0 | 6601500.0 | 12 |
| 324 | 258 | | | 640100.0 | 6601500.0 | 12 |
| 324 | 267 | | | 640100.0 | 6601500.0 | 12 |
| 324 | 321 | | | 640100.0 | 6601500.0 | 12 |
| 324 | 327 | | | 640100.0 | 6601500.0 | 12 |
| 324 | 333 | | | 640100.0 | 6601500.0 | 12 |
| 324 | | | | 640100.0 | 6601500.0 | 12 |
| 400 | 215 | | | 643000.0 | 6599100.0 | 12 |
| 400 | 222 | | | 643000.0 | 6599100.0 | 12 |
| 400 | | | | 643000.0 | 6599100.0 | 12 |
| 428 | 281 | | | 638500.0 | 6601800.0 | 12 |
| 428 | 310 | | | 638500.0 | 6601800.0 | 12 |
| 428 | 316 | | | 638500.0 | 6601800.0 | 12 |
| 428 | 354 | | | 638500.0 | 6601800.0 | 12 |
| 428 | 360 | | | 638500.0 | 6601800.0 | 12 |
| 428 | | | | 638500.0 | 6601800.0 | 12 |
| 481 | 84 | | | 623970.0 | 6599600.0 | 12 |
| 481 | 94 | | | 623970.0 | 6599600.0 | 12 |

TABLE09-2: SAMPLE DESCRIPTION AND LOCATION

| CODING FORM PAGE | 704. SAMPLE ID-6 | 706. SAMPLE DESCRIPTION | 707. LOCATION ACCURACY | 708. EASTING | 709. NORTHING | 710. ZONE |
|---|---|---|---|---|---|---|
| 481 | 101 | | | 623970.0 | 6599600.0 | 12 |
| 481 | 187 | | | 623970.0 | 6599600.0 | 12 |
| 481 | 190 | | | 623970.0 | 6599600.0 | 12 |
| 481 | 233 | | | 623970.0 | 6599600.0 | 12 |
| 481 | 242 | | | 623970.0 | 6599600.0 | 12 |
| 481 | 253 | | | 623970.0 | 6599600.0 | 12 |
| 481 | 363 | | | 623970.0 | 6599600.0 | 12 |
| 481 | | | | 623970.0 | 6599600.0 | 12 |
| 566 | 208 | | | 0.0 | 0.0 | 12 |
| 566 | 384 | | | 0.0 | 0.0 | 12 |
| 566 | 402 | | | 0.0 | 0.0 | 12 |
| 593 | | | | 642200.0 | 6603800.0 | 12 |
| 603 | | | | 645200.0 | 6604500.0 | 12 |
| 614 | | | | 644800.0 | 6604500.0 | 12 |
| 658 | | | | 45500.0 | 6603600.0 | 12 |
| 659 | | | | 45500.0 | 6603600.0 | 12 |

TABLE09-3: SAMPLE DESCRIPTION AND LOCATION

| CODING FORM PAGE | 711. SURFACE ELEVATION | *07. PRECISION | 712. SAMPLE DEPTH | *07. PRECISION | *10. SAMPLE METHOD (FIELD) | *11. SEDIMENT TYPE | *12. FLOW |
|---|---|---|---|---|---|---|---|
| 4 | 0.00 | | 0.00 | | 10 | | 4 |
| 10 | 0.00 | | 0.00 | | 10 | | 4 |
| 13 | 0.00 | | 0.00 | | 10 | | 4 |
| 16 | 0.00 | | 0.00 | | 10 | | 4 |
| 20 | 0.00 | | 0.00 | | 10 | | 4 |
| 25 | 0.00 | | 0.00 | | 10 | | 4 |
| 30 | 0.00 | | 0.00 | | 12 | | 4 |
| 34 | 0.00 | | 0.00 | | 10 | | 4 |
| 39 | 0.00 | | 0.00 | | 12 | | 4 |
| 43 | 0.00 | | 0.00 | | 10 | | 4 |
| 46 | 0.00 | | 0.00 | | 10 | | 4 |
| 51 | 0.00 | | 0.00 | | 10 | | 4 |
| 54 | 0.00 | | 0.00 | | 10 | | 4 |
| 58 | 0.00 | | 0.00 | | 10 | | 4 |
| 62 | 0.00 | | 0.00 | | 10 | | 4 |
| 66 | 0.00 | | 0.00 | | 10 | | 4 |
| 70 | 0.00 | | 0.00 | | 10 | | 4 |
| 74 | 0.00 | | 0.00 | | 10 | | 4 |
| 78 | 0.00 | | 0.00 | | 10 | | 4 |
| 82 | 0.00 | | 0.00 | | 10 | | 4 |
| 86 | 0.00 | | 0.00 | | 10 | | 4 |
| 89 | 0.00 | | 0.00 | | 10 | | 4 |
| 92 | 0.00 | | 0.00 | | 10 | | 4 |
| 95 | 0.00 | | 0.00 | | 10 | | 4 |
| 98 | 0.00 | | 0.00 | | 10 | | 4 |
| 101 | 0.00 | | 0.00 | | 10 | | 4 |
| 104 | 0.00 | | 0.00 | | 10 | | 4 |
| 109 | 0.00 | | 0.00 | | 10 | | 4 |
| 113 | 0.00 | | 0.00 | | 10 | | 4 |
| 117 | 0.00 | | 0.00 | | 10 | | 4 |
| 121 | 0.00 | | 0.00 | | 10 | | 4 |
| 125 | 0.00 | | 0.00 | | 10 | | 4 |
| 130 | 0.00 | | 0.00 | | 10 | | 4 |
| 135 | 0.00 | | 0.00 | | 10 | | 4 |
| 140 | 0.00 | | 0.00 | | 10 | | 4 |
| 144 | 0.00 | | 0.00 | | 10 | | 4 |
| 148 | 0.00 | | 0.00 | | 10 | | 4 |
| 152 | 0.00 | | 0.00 | | 10 | | 4 |
| 156 | 0.00 | | 0.00 | | 10 | | 4 |
| 160 | 0.00 | | 0.00 | | 10 | | 4 |
| 163 | 0.00 | | 0.00 | | 10 | | 4 |
| 168 | 0.00 | | 0.00 | | 10 | | 4 |
| 173 | 0.00 | | 0.00 | | 10 | | 4 |
| 178 | 0.00 | | 0.00 | | 10 | | 4 |

TABLE09-3: SAMPLE DESCRIPTION AND LOCATION

| CODING FORM PAGE | 711. SURFACE ELEVATION | #07. PRECISION | 712. SAMPLE DEPTH | #07. PRECISION | #10. SAMPLE METHOD (FIELD) | #11. SEDIMENT TYPE | #12. FLOW |
|---|---|---|---|---|---|---|---|
| 181 | 0.00 | | 0.00 | | 10 | | 4 |
| 185 | 0.00 | | 0.00 | | 10 | | 4 |
| 189 | 0.00 | | 0.00 | | 10 | | 4 |
| 194 | 0.00 | | 0.00 | | 10 | | 4 |
| 199 | 0.00 | | 0.00 | | 10 | | 4 |
| 204 | 0.00 | | 0.00 | | 10 | | 4 |
| 211 | 0.00 | | 0.00 | | 10 | | 4 |
| 214 | 0.00 | | 0.00 | | 10 | | 4 |
| 217 | 0.00 | | 0.00 | | 10 | | 4 |
| 220 | 0.00 | | 0.00 | | 10 | | 4 |
| 225 | 0.00 | | 0.00 | | 10 | | 4 |
| 230 | 0.00 | | 0.00 | | 10 | | 4 |
| 234 | 0.00 | | 0.00 | | 10 | | 4 |
| 240 | 0.00 | | 0.00 | | 10 | | 4 |
| 245 | 0.00 | | 0.00 | | 10 | | 4 |
| 251 | 0.00 | | 0.00 | | 10 | | 4 |
| 251 | 0.00 | | 0.00 | | 10 | | 4 |
| 251 | 0.00 | | 0.00 | | 10 | | 4 |
| 251 | 0.00 | | 0.00 | | 10 | | 4 |
| 251 | 0.00 | | 0.00 | | 10 | | 4 |
| 296 | 0.00 | | 0.00 | | 10 | | 4 |
| 301 | 0.00 | | 0.00 | | 10 | | 4 |
| 305 | 0.00 | | 0.00 | | 10 | | 4 |
| 310 | 0.00 | | 0.00 | | 10 | | 4 |
| 313 | 0.00 | | 0.00 | | 10 | | 4 |
| 317 | 0.00 | | 0.00 | | 10 | | 4 |
| 324 | 0.00 | | 0.00 | | 10 | | 4 |
| 324 | 0.00 | | 0.00 | | 10 | | 4 |
| 324 | 0.00 | | 0.00 | | 10 | | 4 |
| 324 | 0.00 | | 0.00 | | 10 | | 4 |
| 324 | 0.00 | | 0.00 | | 10 | | 4 |
| 324 | 0.00 | | 0.00 | | 10 | | 4 |
| 324 | 0.00 | | 0.00 | | 10 | | 4 |
| 324 | 0.00 | | 0.00 | | 10 | | 4 |
| 324 | 0.00 | | 0.00 | | 10 | | 4 |
| 400 | 0.00 | | 0.00 | | 10 | | 4 |
| 400 | 0.00 | | 0.00 | | 10 | | 4 |
| 400 | 0.00 | | 0.00 | | 10 | | 4 |
| 428 | 0.00 | | 0.00 | | 10 | | 4 |
| 428 | 0.00 | | 0.00 | | 10 | | 4 |
| 428 | 0.00 | | 0.00 | | 10 | | 4 |
| 428 | 0.00 | | 0.00 | | 10 | | 4 |
| 428 | 0.00 | | 0.00 | | 10 | | 4 |
| 428 | 0.00 | | 0.00 | | 10 | | 4 |

TABLE09-3: SAMPLE DESCRIPTION AND LOCATION

| CODING FORM PAGE | 711. SURFACE ELEVATION | #07. PRECISION | 712. SAMPLE DEPTH | #07. PRECISION | #10. SAMPLE METHOD (FIELD) | #11. SEDIMENT TYPE | #12. FLOW |
|---|---|---|---|---|---|---|---|
| 481 | 0.00 | | 0.00 | | 10 | | 4 |
| 481 | 0.00 | | 0.00 | | 10 | | 4 |
| 481 | 0.00 | | 0.00 | | 10 | | 4 |
| 481 | 0.00 | | 0.00 | | 10 | | 4 |
| 481 | 0.00 | | 0.00 | | 10 | | 4 |
| 481 | 0.00 | | 0.00 | | 10 | | 4 |
| 481 | 0.00 | | 0.00 | | 10 | | 4 |
| 481 | 0.00 | | 0.00 | | 10 | | 4 |
| 481 | 0.00 | | 0.00 | | 10 | | 4 |
| 481 | 0.00 | | 0.00 | | 10 | | 4 |
| 566 | 0.00 | | 0.00 | | 01 | | 3 |
| 566 | 0.00 | | 0.00 | | 01 | | 3 |
| 566 | 0.00 | | 0.00 | | 01 | | 3 |
| 593 | 0.00 | | 0.00 | | 01 | | 3 |
| 603 | 0.00 | | 0.00 | | 01 | | 2 |
| 614 | 0.00 | | 0.00 | | 10 | | 5 |
| 658 | 0.00 | | 0.00 | | 10 | | 5 |
| 659 | 0.00 | | 0.00 | | 10 | | 5 |

## APPENDIX O

### FILE STRUCTURE AND DATA LISTING FOR TABLE10.

```
DISPLAY STRUCTURE
STRUCTURE FOR FILE:  C:TABLE10 .DBF
NUMBER OF RECORDS:   00013
DATE OF LAST UPDATE: 04/11/84
PRIMARY USE DATABASE
FLD       NAME       TYPE WIDTH   DEC
001     CFPAGE        N    007
002     TLNGSST01     C    012
003     STDYID:01     C    003
004     SRCCDE:02     C    002
005     STDYLS601     C    020
006     STDYGV602     C    020
007     STDYFL603     C    020
** TOTAL **            00085
.
```

```
M=1,L=54,W=137
Y
TABLE10: STUDY, AUTHORS AND KEYWORDS (AUTHORS)
N
N
7,CFPAGE
CODING FORM PAGE
15,TLNGSST01
1. TAILINGS SITE IDENTIFIER
11,STDYID:01
*01. STUDY IDENTIFIER
6,SRCCDE:02
*02. SOURCE CODE
20,STDYLS601
601. STUDY AUTHOR'S NAME
20,STDY6V602
602. STUDY AUTHOR'S GIVEN NAME
20,STDYFL603
603. STUDY AUTHOR'S AFFILIATION
```

TABLE10: STUDY, AUTHORS AND KEYWORDS (AUTHORS)

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | *01. STUDY IDENTIFIER | *02. SOURCE CODE | 601. STUDY AUTHOR'S NAME | 602. STUDY AUTHOR'S GIVEN NAME | 603. STUDY AUTHOR'S AFFILIATION |
|---|---|---|---|---|---|---|
| 3 | BEAVERLODGEL | 001 | | SWANSON | STELLA | SASK RESEARCH COUNCL |
| 210 | BEAVERLODGEL | 001 | | SWANSON | STELLA | SASK RESEARCH COUNCL |
| 239 | BEAVERLODGEL | 001 | | SWANSON | STELLA | SASK RESEARCH COUNCL |
| 250 | BEAVERLODGEL | 001 | | SWANSON | STELLA | SASK RESEARCH COUNCL |
| 323 | BEAVERLODGEL | 001 | | SWANSON | STELLA | SASK RESEARCH COUNCL |
| 399 | BEAVERLODGEL | 001 | | SWANSON | STELLA | SASK RESEARCH COUNCL |
| 427 | BEAVERLODGEL | 001 | | SWANSON | STELLA | SASK RESEARCH COUNCL |
| 480 | BEAVERLODGEL | 001 | | SWANSON | STELLA | SASK RESEARCH COUNCL |
| 565 | BEAVERLODGEL | 001 | | SWANSON | STELLA | SASK RESEARCH COUNCL |
| 592 | BEAVERLODGEL | 001 | | SWANSON | STELLA | SASK RESEARCH COUNCL |
| 602 | BEAVERLODGEL | 001 | | SWANSON | STELLA | SASK RESEARCH COUNCL |
| 613 | BEAVERLODGEL | 001 | | SWANSON | STELLA | SASK RESEARCH COUNCL |
| 650 | BEAVERLODGEL | 001 | | SWANSON | STELLA | SASK RESEARCH COUNCL |

## APPENDIX P

## FILE STRUCTURE AND DATA LISTING FOR TABLE11.

```
DISPLAY STRUCTURE
STRUCTURE FOR FILE:  C:TABLE11 .DBF
NUMBER OF RECORDS:   00019
DATE OF LAST UPDATE: 04/11/84
PRIMARY USE DATABASE
FLD       NAME       TYPE WIDTH   DEC
001     CFPAGE        N    007
002     TLNGSST01     C    012
003     STDrID:01     C    003
004     SRCCDE:02     C    002
005     KEYWRD801     C    020
** TOTAL **             00045
.
```

```
M=1,L=54,W=137
Y
TABLE11: STUDY, AUTHORS AND KEYWORDS (KEYWORDS)
N
N
7,CFPAGE
CODING FORM PAGE
15,TLNGSST01
1. TAILINGS SITE IDENTIFIER .
11,STDYID:01
*01. STUDY IDENTIFIER
6,SRCCDE:02
*02. SOURCE CODE
20,KEYWRD801
801. KEYWORD
```

TABLE11: STUDY, AUTHORS AND KEYWORDS (KEYWORDS)

| CODING FORM PAGE | 1. TAILINGS SITE IDENTIFIER | #01. STUDY IDENTIFIER | #02. SOURCE CODE | B01. KEYWORD |
|---|---|---|---|---|
| 3 | BEAVERLODGEL | 001 | | AQUATIC FOODCHAIN |
| 3 | BEAVERLODGEL | 001 | | RA-226 |
| 3 | BEAVERLODGEL | 001 | | PB-210 |
| 3 | BEAVERLODGEL | 001 | | URANIUM |
| 3 | BEAVERLODGEL | 001 | | FISH |
| 210 | BEAVERLODGEL | 001 | | FOODCHAIN |
| 210 | BEAVERLODGEL | 001 | | RA-226 |
| 210 | BEAVERLODGEL | 001 | | AQUATIC FOODCHAIN |
| 210 | BEAVERLODGEL | 001 | | RA-226 |
| 210 | BEAVERLODGEL | 001 | | PB-210 |
| 210 | BEAVERLODGEL | 001 | | URANIUM |
| 210 | BEAVERLODGEL | 001 | | FISH |
| 650 | BEAVERLODGEL | 001 | | AQUATIC FOODCHAIN |
| 650 | BAEVERLODGEL | 001 | | RADIUM 226 |
| 650 | BEAVERLODGEL | 001 | | PB-210 |
| 650 | BEAVERLODGEL | 001 | | URANIUM |
| 650 | BEAVERLODGEL | 001 | | FISH |
| 650 | BEAVERLODGEL | 001 | | RA-226 |
| 650 | BEAVERLODGEL | 001 | | FOODCHAIN |

## APPENDIX Q

TABLE13, TABLE14, TABLE15 USED IN A JOIN-COMMAND SEQUENCE

(SEE CHAPTER 4).

```
. display structure
STRUCTURE FOR FILE:  C:TABLE13 .DBF
NUMBER OF RECORDS:   00001
DATE OF LAST UPDATE: 05/18/84
PRIMARY USE DATABASE
FLD       NAME        TYPE WIDTH   DEC
001       CFPAGE       N    007
002       TLNGSST01    C    012
003       STDYID:01    C    003
004       RFRNCI701    C    012
005       LCTNCD:09    C    003
006       SMPLDT702    N    006
007       SMPLTM703    N    006
008       SMPLTP705    N    004
009       SMPL704:1    C    007
010       SMPL704:2    C    007
011       SMPL704:3    C    007
012       SMPL704:4    C    007
013       SMPL704:5    C    007
014       SMPL704:6    C    007
015       SMPLDS706    C    035
016       LCNACC707    C    006   001
017       EASTNG708    N    009   001
018       NORTHG709    N    010   001
019       ZONE710      N    002
020       SRFCEL711    N    008   002
021       PRCSN711     C    001
022       SMPLDP712    N    008   002
023       PRCSN712     C    001
024       SMPLMT:10    C    002
025       SDMNTP:11    C    002
026       FLOW:12      C    002
** TOTAL **           00182
.

list
00001      230 BEAVERLODGEL 001 FULTONL.NS-2 002  790719  200000  7100 58
59
      46230.0   6603300.0  12      0.00        0.00   10    4
.
```

```
use table14
. display structure
STRUCTURE FOR FILE: C:TABLE14 .DBF
NUMBER OF RECORDS:  00003
DATE OF LAST UPDATE: 00/00/00
PRIMARY USE DATABASE
FLD       NAME        TYPE WIDTH   DEC
001     CFPAGE          N    007
002     CFPAGE          N    007
003     MTRAL1101       C    020
004     SMPL704:1       C    007
** TOTAL **             00042
.
```

```
list
00001        230        231 RADIUM-226, TOTAL      58
00002        230        231 LEAD-210, TOTAL        58
00003        230        231 URANIUM, TOTAL         58
.
```

```
use tav blei5
. display structure
STRUCTURE FOR FILE: C:TABLE15 .DBF
NUMBER OF RECORDS:  00003
DATE OF LAST UPDATE: 00/00/00
PRIMARY USE DATABASE
FLD       NAME        TYPE WIDTH   DEC
001     CFPAGE          N    007
002     CFPAGE          N    007
003     MTRAL1101       C    020
004     SMPL704:1       C    007
005     SPECIE:15       C    015
** TOTAL **             00057
.
```

```
list
00001        230        233 RADIUM-226, TOTAL      58        NAMAYCUSH
00002        230        233 LEAD-210, TOTAL        58        NAMAYCUSH
00003        230        233 URANIUM, TOTAL         58        NAMAYCUSH
.
```